

Chang, Hyo Jung, Ph.D. An Investigation of Self-Concept, Clothing Selection, and Life Satisfaction among Disabled Consumers (2012).

Directed By: Dr. Nancy Hodges and Dr. Jennifer Yurchisin, 192 pp.

This dissertation investigates the relationships between various aspects of self-concept (i.e., generalized self-efficacy, public self-consciousness, state hope, and self-esteem), clothing selection (i.e., clothing that expresses individuality, clothing that improves the emotional state, clothing that camouflages the body), and life satisfaction among disabled consumers. This study aims to examine the impact that such aspects of disabled consumers' self-concept have on the type of clothing they choose to wear and their life satisfaction.

A two-step research design was employed. Step one consisted of a qualitative preliminary study. In step two, a survey questionnaire was developed based on a review of existing literature and the findings of the preliminary study. A total of five hypotheses were developed based on constructs defined in the literature on self-concept, life satisfaction and clothing selection. Existing measurements were selected from the literature to assess each construct and to test the hypotheses. The survey was disseminated at universities and community disability organizations. A total of 318 usable questionnaires were collected from 113 females and 199 males whose ages ranged from 18 to 81 years, with an average age of 38 years. Most of the respondents were Caucasian/White. The majority of the participants had a mobility impairment or a visual impairment, and have had their disabilities for over 10 years.

Structural equation modeling was employed via Lisrel 8.8 to test the hypotheses. Results for the main effects of the conceptual model revealed a χ^2 of 2873.37 (df = 1023;

$p < .000$), GFI of .72, CFI of .94, RMSEA of .076, NFI of .90, and $\chi^2/df = 2.80$. Based on the inclusion of the two additional paths suggested by the modification indices, the adjusted model had a χ^2 of 2285.51 ($df = 932$; $p < .000$), GFI of .76, CFI of .95, RMSEA of .068, NFI of .91, and $\chi^2/df = 2.45$. The model was deemed to be an acceptable fit for the data.

Results indicate that for disabled consumers, self-esteem is related to two aspects of their multifaceted self-concept, public self-consciousness and state hope, and that self-esteem positively influences life satisfaction. Findings suggest that disabled individuals who are satisfied with their lives are more likely to choose clothing to express their distinctive identities. Positive relationships between state hope and life satisfaction and between public self-consciousness and the assurance dimension of clothing choice were identified. Additionally, significant relationships were found between generalized self-efficacy and self-esteem, and between self-esteem and the assurance dimension of clothing choice.

This study provides a theoretical framework that describes the relationships between disabled consumers' self-concept, life satisfaction, and clothing choice. Results shed light on the social-psychological factors influencing clothing choices of disabled consumers and thereby address a gap in the literature by considering the use of clothing by this often overlooked consumer segment. More research is needed to provide further empirical support for the relationships between self-concept, clothing choice, and life satisfaction found in this study.

AN INVESTIGATION OF SELF-CONCEPT, CLOTHING SELECTION,
AND LIFE SATISFACTION AMONG DISABLED CONSUMERS

by

Hyo Jung Chang

A Dissertation Submitted to
the Faculty of The Graduate School at
the University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Greensboro
2012

Approved by

Dr. Nancy Nelson Hodges
Committee Co-Chair

Dr. Jennifer Yurchisin
Committee Co-Chair

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of
The Graduate School at The University of North Carolina at Greensboro.

Committee Co-Chair _____
Dr. Nancy Nelson Hodges

Committee Co-Chair _____
Dr. Jennifer Yurchisin

Committee Members _____
Dr. Kittichai Watchravesringkan

Dr. Terry Ackerman

June 14, 2012
Date of Acceptance by Committee

June 14, 2012
Date of Final Oral Examination

ACKNOWLEDGMENTS

First of all, I wish to thank the members of my doctoral committee for their indispensable help and guidance throughout my dissertation process. I would like to express my sincere thanks to my major co-advisors, Dr. Nancy Hodges and Dr. Jennifer Yurchisin for their invaluable insights, helpful guidance, and endless support. I always enjoyed the discussions we had about the dissertation and my professional career path. I would like to thank Dr. Kittichai Watchravesringkan for his thoughtful advice and support. Your advice was extremely valuable in clarifying and focusing on the research problem for my dissertation. I would also like to thank Dr. Terry Ackerman for his help and insight. Your help and advice were always insightful, practical, and graceful. This would not have been possible without any of my committee members.

Many thanks go to my fellow graduate friends who are in the Department of Consumer, Apparel, and Retail Studies for their assistance and care. I have a lot of fun and good memories with you in the graduate office and in everyday life. Special thanks to my friends in Christ for your caring and prayers throughout my dissertation process.

Last but not least, I want to express my love and appreciation to my wonderful and beloved family, my parents as well as my brother, You Jin. Without your unconditional love, continuing support, encouragement, and sacrifice, my graduate work and this dissertation would not have been possible. Finally, I would like to thank God for the incredible ways in which he has walked with me, helped me through this dissertation process, guided me, and blessed me.

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CHAPTER I

INTRODUCTION

“Hope sees the invisible, feels the intangible, and achieves the impossible” (Helen Adams Keller, 1880-1968). This famous quotation shows that hope, or positive thinking, can make the invisible visible, the intangible tangible, and the impossible possible. Individuals with disabilities are often misunderstood by society because of either physical or mental limitations. In turn, people with disabilities often limit themselves socially. However, as the quote by Helen Keller illustrates, the disabled can overcome these limitations and seek a more fulfilling life as fully engaged members of society.

This dissertation investigates the influence of disabled individuals’ multifaceted self-concept on their social-psychological motivations for clothing selection. Specifically, this study examines the roles of self-concept, including self-efficacy, self-consciousness, state hope, and self-esteem on disabled consumers’ clothing choices and how these choices are related to life satisfaction. As an introduction to the dissertation, this chapter includes the following sections: (1) Statement of the Research Problem; (2) Background Information; (3) Gaps in the Research; (4) Purpose and Guiding Research Questions; (5) Methodological Considerations; (6) Definition of Key Terms; and (7) Organization of the Dissertation.

Statement of the Research Problem

As humans, we are prone to perceiving difference through prejudice and ignorance (Baker, Stephens, & Hill, 2001). As such, disability tends to be considered an uncomfortable topic for people (Burnett, 2006). Yet, topics related to disability and the disabled are becoming increasingly accepted due to governmental laws and social movements (U.S. Census Bureau, 2010). Disabled consumers' involvement in society has increased since the Americans with Disabilities Act (ADA) was enacted by the U.S. Congress in 1990 (Hardman, Drew, & Egan, 2001). The purpose of this federal law was to prevent discrimination based on an individual's disability in terms of employment, use of programs and services provided by state and local governments and private companies, and access to commercial facilities. However, there remains quite a bit of prejudice and ignorance about disabled people as individuals. For example, disabled people have often been regarded as individuals who have lower incomes and are not affluent. Because consumer behavior research has typically focused on the population of "haves" and assumed consumers' normalcy (Miller, 1997), the population of "have nots" has been largely ignored by researchers. As a result, we have a limited understanding of disabled individuals as consumers.

According to the U.S. Census (2010), approximately 36 million people in the U.S. have at least one form of disability. This accounts for 12 percent of the total U.S. population. Because of physical or mental limitations, disabled individuals may engage in behaviors that are unlike those of others in their society (Ittyerah & Kumar, 2009). One such behavior that may be affected by disabilities is dress behavior. For example, if an

individual has a physical disability, such as a visual or physical impairment, she/he may need someone to assist with clothing selection. If an individual has a mental disability, such as autism, she/he may use clothes more for therapeutic purposes.

As a nonverbal communication tool, clothing is a meaningful expression of the self (Damhorst, Miller-Spillman, & Michelman, 2005). This is true for nondisabled and disabled consumers. However, disabled consumers' perspectives of clothing have been largely ignored, as existing research on disabled consumers is both recent and severely limited (Burnett, 2006). Therefore, the experiences of disabled consumers have not contributed equally to our present understanding of dress and human behavior (Lamb, 2001).

Some aspects of disabled consumers' dress behavior have been investigated. For example, studies have examined buying behavior and the physical constraints disabled individuals experience while shopping as well as their special clothing design requirements (de Klerk & Ampousah, 2002; Kidd, 2006). However, clothing decision-making is not just about fit and design. For instance, individuals assign meanings to clothing, and the meanings individuals assign to clothing interact with those wearing it (Coskuner & Sandikci, 2004). These meanings may differ for disabled consumers. Clothing selection is considered to be a substantial method by which individuals achieve emotional and psychological satisfaction (Roach-Higgins & Eicher, 1992). Yet, the fundamental social psychological aspects of clothing selection and meanings relative to disabled individuals have not been thoroughly investigated.

Background

Until recently, a disability was understood to be an underlying physical and/or mental limitation (Grewal et al., 2002). For example, a person with leg paralysis was considered disabled based on his/her physical condition. However, today, disability is seen as a more complex interaction between a person and his/her environment (Raghavendra et al., 2007). Thus, the emphasis has switched from providing support to the disabled through benefits, to supporting independence and promoting their involvement in all aspects of society (Duvdevany, 2008).

Disabled Consumers

A disabled person is now defined as one who lacks ability to perform an activity which is considered normal for a human being (Ittyerah & Kumar, 2009). Thus, in society, a disabled person is simply defined as one who is disabled because she/he has a different appearance or behavior. Disability can be explained as both a personal problem and a social problem (Lamb, 2001). Some disabled individuals may need care provided by professionals. On the other hand, some disabled individuals may not need professional care but instead need social acceptance and seek equality rather than special treatment.

Disabilities can be categorized along three levels based on the context, duration, and severity of the disability. Disability context relates to the type of disability, either physical or mental (McDevitt, 1998). Physical disabilities include blindness, deafness, or any orthopedic handicaps. Mental disabilities include neurological disorders (e.g., a mentally retarded person). Individuals are then further categorized based on the length of time they have experienced the disability. Individuals may be classified as being either

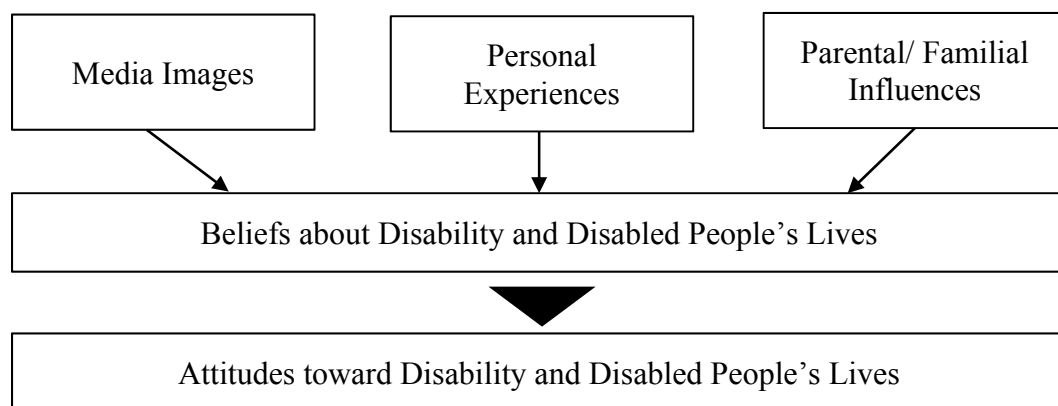
congenitally disabled or accidentally disabled. Congenital disabilities mean innate defects which one has had from birth. Accidental disabilities include any handicaps which a person inadvertently receives after birth (e.g., lost legs from a war or body damaged by car accident). As a third level of categorization, disabled people are either temporally disabled or permanently disabled. Temporal disabilities include accidental handicaps which can be recovered from. Permanent disabilities include both congenital and accidental handicaps which cannot be recovered from. This dissertation includes individuals with a range of physical or mental disabilities, and both congenital and accidental forms of temporary and permanent disabilities.

Disability is considered to unfavorably affect an individual's quality of life, both personally and socially (Grewal et al., 2002). Disability has been perceived as a reduction in one's physical and mental ability. Thus, it is often assumed that a disability has a negative impact on an individual's independence. As a consequence, it is also expected that a disability causes emotional and psychological trauma for the disabled individual. In terms of its social impact, a disability is thought to restrict the individual's ability to engage in everyday activities, such as shopping or using public transport. Nondisabled people tend to have strong attitudes about disabled people and the impact of disability in their lives, and as a result, disabled individuals often face negative social attitudes and prejudicial responses within society (Grewal et al., 2002).

Figure 1 illustrates how beliefs and attitudes about disability and disabled individuals are established. Three primary factors influence these beliefs and attitudes (Grewal et al., 2002). One factor is media images about disability and disabled people's

lives. The way in which disabled individuals are portrayed in advertisements and in television programs has an impact on our beliefs about what disabled people are like or what disabled people can accomplish. Another factor is personal experience, as a disabled or a nondisabled individual, with disabled people. The interactions that individuals have with those who are disabled shape their impressions of those individuals with various disabilities. Lastly, parental or familial influences represent the third factor that helps form beliefs about disabled individuals. Witnessing the reactions of those closest to each individual undoubtedly affects his or her beliefs about disabled individuals. Beliefs are shown to influence attitudes toward disability on the part of both disabled and nondisabled individuals (Grewal et al., 2002). Yet, it is important to understand how disabled individuals think about themselves. That is, disabled individuals may or may not see themselves as “disabled” to the same extent that others do.

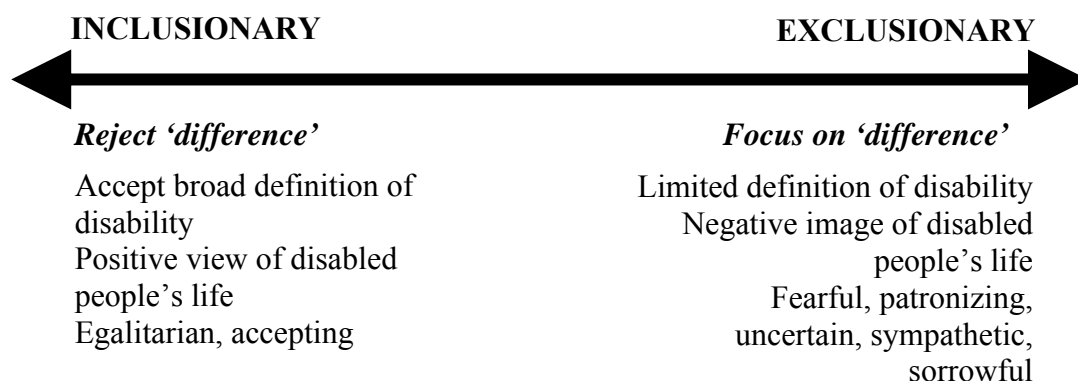
Figure 1. The Formation of Attitudes towards Disability



Source: “Disabled for Life? Attitudes Towards, and Experiences of, Disability in Britain,” by Grewal et al., 2002, The Charlesworth Group: Huddersfield, UK (p. 57).

Public attitudes toward disability and those with disabilities can be placed on a continuum (see Figure 2). According to Grewal et al. (2002), this continuum is important because it can justify public behaviors toward disabled individuals which, in turn, can influence the everyday lives of disabled individuals. It is important to note that, though one's sense of identity is complex, the continuum is applicable to both disabled and nondisabled individuals. At one end of the continuum lie inclusionary attitudes. Individuals with inclusionary attitudes focus less on the differences between disabled individuals and nondisabled individuals and instead express egalitarian responses. Individuals who have inclusionary attitudes do not focus on differences; instead they emphasize equality. Disabled individuals tend to experience the same range of life experiences as nondisabled people. Nondisabled individuals with inclusionary attitudes also focus less on difference.

Figure 2. A Continuum of Attitude towards Disability



Source: "Disabled for Life? Attitudes Towards, and Experiences of, Disability in Britain," by Grewal et al., 2002, The Charlesworth Group: Huddersfield, UK (p. 64).

In contrast, disabled individuals with exclusionary attitudes tend to focus on difference. Thus, they have negative images of themselves as well as fearful, uncertain, and negative attitudes toward their lives. As a result, their quality of life is greatly diminished (Grewal et al., 2002). Likewise, nondisabled individuals with exclusionary attitudes view disabled individuals as different from normal people or outside of mainstream society. These individuals express mistrust or seek to avoid disabled individuals. Quality of life, as with inclusionary attitudes, is impacted by such attitudes toward disability and disabled individuals. This conceptualization of attitudes toward disability highlights the subjective nature of disability, which is determined by individuals' judgments, and how attitudes can affect emotions, behaviors, and ultimately life satisfaction.

Self-Concept

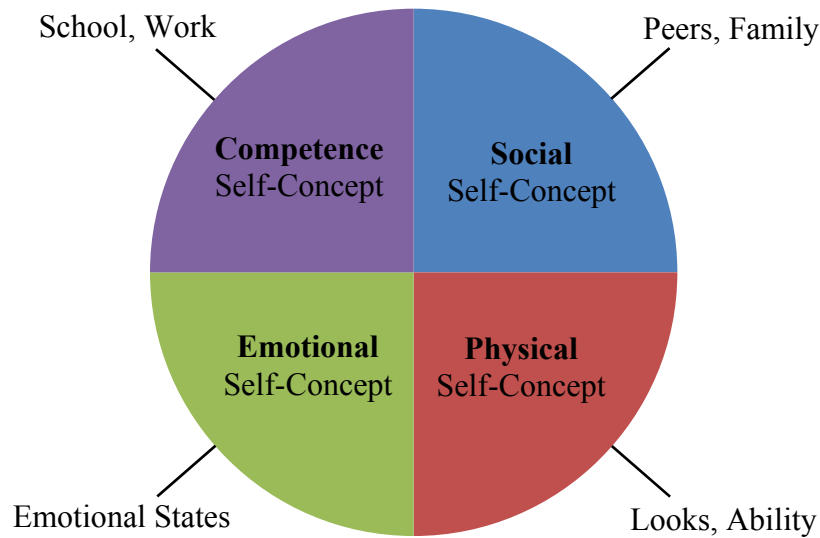
Self-concept is defined as self-perceptions related to attitudes, feelings, and knowledge about one's appearance or abilities (Byrne, 1984). Self-concept is complex, as it is related to the beliefs a person has about his/her own characteristics and how he/she evaluates them (Solomon, 2007). Self-concept is also referred to as *self-construction*, *self-identity*, or *self-perspective*. Consumers' social psychological factors, particularly those related to aspects of their self-concept (e.g., self-esteem) are known to play a significant role in consumer behavior in general (Yurchisin & Johnson, 2004). Self-concept consists of many attributes (e.g., personal qualities and characteristics) such as content (e.g., facial appearance or ideal self), positivity (e.g., self-esteem or body image), intensity (e.g., social status), stability over time, and accuracy (e.g., the degree that one's

assessment corresponds to reality) (Solomon, 2007). Previous studies on the topic of self-concept have established relationships among these attributes (Kwon & Shim, 1999; Oyedele & Simpson, 2007).

Figure 3 illustrates how self-concept can be divided into four categories including: *competence*, *social*, *emotional*, and *physical* (Marsh, 1989). The competence self-concept includes both academic and nonacademic self-concepts. Academic competence self-concept represents one's subjective-specific confidence in school and work settings. Nonacademic competence self-concept is divided into social, emotional, and physical self-concepts and can be further divided into more specific components (e.g., physical self-concept into physical ability and physical appearance). Social self-concept refers to one's self-identity when interacting with peers or family. Emotional self-concept is related to one's affective characteristics (e.g., happy, sad, anxious, calm). Last but not least, physical self-concept includes one's self-perception with regards to looks and ability.

Although this conceptualization is useful for certain sorts of investigations about people with disabilities, in this dissertation, self-concept is studied at a broader level to examine how self-concept is generally related to clothing and life satisfaction. Specifically, self-concept and related meanings can be associated with the clothing one wears, in that clothing is often used as a tool to express social status, personal characteristics, or moods (Kaiser, 1997). Thus, the meanings attached to one's clothing can reflect one's overall self-concept.

Figure 3. Dimensions of Self-Concept



Source: "Age and Sex Effects in Multiple Dimensions of Self-Concept: Preadolescence to Early Adulthood," by Marsh, 1989, *Journal of Educational Psychology*, 81(3), 417-430.

The Meanings of Clothing

Clothing has many meanings, some of which are complex, while others are basic. Research suggests that individuals wear clothing to fulfill basic needs (Barnard, 2002), and that basic functions of clothing are related to literal meanings. For example, a skirt is literally an item made of cloth that is worn on the bottom half of a person's body. Furthermore, the basic function of a skirt is its protective or primary purpose, which represents the intrinsic characteristic of covering the body with clothing (Barnard, 2002).

Yet, not all meanings of clothing relate to its basic function. The clothing we choose to wear influences our beliefs about ourselves as well as the way other people see us. For example, the basic function of the skirt will protect the person from the physical

elements (e.g., cold weather, rain). However, it has an implicit function in that it communicates “female” or a feminine identity in a specific social context. Much research supports the idea that individuals use clothing to express meanings related to the self (Roach & Eicher, 1973). Meanings of clothing have been a topic of investigation for centuries (Johnson, Torntore, & Eicher, 2003), as clothing and appearance are visible elements used to identify and differentiate between individuals in society (Inglessis, 2008).

Clothing is also an expression of individual, social, and cultural identities (Kaiser, 1997). Clothing forms the meanings, also called the functions, of these expressions and identities through symbolic communication. That is, individuals select clothing because it satisfies both basic and communicative needs. If they are not satisfied with a clothing object, they will not wear it and therefore not assign it meaning. Understanding attitudes and beliefs with regards to clothing is therefore important to understanding human beings and human behavior. Kaiser (1983-1984) outlines how the concept of meaning in clothing can be understood via two different perspectives: symbolic interactionism and cognitive social psychology (see Table 1).

Symbolic interaction focuses primarily on the origins and initiation of meaning (Hewitt, 1997). Developed by sociologists, symbolic interaction explains how meaning arises from social interaction. Meaning is formed by the interaction between individuals, not by the individuals alone. Thus, individuals interact in situations together and create mutual meanings, including those regarding clothing. For instance, according to Coskuner and Sandikci (2004), symbolic motives usually play a more important role than

utilitarian motives in clothing selection. The authors suggest that clothing is worn for symbolic reasons (e.g., buying clothing for power or status) more than for utilitarian reasons (e.g., buying clothing when existing clothing is unwearable). Symbolic interaction illustrates the meaning of clothing symbols from the wearer's perspective and relative to the perceiver's perspective.

Table 1. Comparison of Social-Psychological Approaches toward Clothing

	Symbolic Interaction	Cognitive Social Psychology
Point of View	Wearer and perceiver	Perceiver(s)
Major Process and Role of Clothing	Emergence of joint acts as individuals negotiate their interpretations of clothing symbols	Emergence of perceiver's implicit assumptions about a wearer based on inference processes tied to selected clothing cues
Basic Assumption	Humans make self-indications toward their own and others' clothes in order to make sense of interactions	Humans process selected clothing cues to simplify and make sense of interactions
Perspective of Wearer	Emphasis on meanings of clothing symbols as tied to situational identity	Emphasis on psychological states (as they really are)
Perspective of Perceiver	Emphasis on need for role-taking, or striving to identify with wearer's appearance	Emphasis on need for consistency between perceptions of dress and behavior of wearer (cognitive consistency theory)
Research Approach	Naturalistic; qualitative	Experimental; quantitative

Source: "Toward a Contextual Social Psychology of Clothing: A Synthesis of Symbolic Interactionist and Cognitive Theoretical Perspectives," by Kaiser, 1983-1984, *Clothing and Textiles Research Journal*, 2(1), 1-9 (p. 4).

In contrast to symbolic interaction, the cognitive social psychological approach originates from a more psychologically-driven perspective, with emphasis placed on the individual rather than the group. The cognitive social psychological approach posits that the meaning of clothing is derived from the perceiver, and therefore focuses primarily on the cues coming from the visual aspects of clothing (Kaiser, 1983-1984). This emphasizes the need for consistency between the wearer's dress and behavior from the perceiver's perspective.

As will be discussed, this dissertation investigates clothing via both the symbolic interaction and cognitive social perspectives. Because very little research had been conducted about disabled consumers with respect to the meanings they apply to the clothing that they choose to wear, a preliminary qualitative research study was undertaken. This preliminary research was used to inform the main dissertation research, and employed a symbolic interaction approach as a guide to understand disabled participants' experiences with respect to clothing. For the main dissertation research, a cognitive social psychological approach was employed via a quantitative research methodology.

Gaps in the Research

Despite their differences, disabled consumers rely on dress to communicate personal and social identities much like everyone else. However, little research has been conducted regarding the social psychological factors that shape their decision-making with respect to clothing. Factors that influence disabled consumers' clothing choices may be different than those of nondisabled consumers. For instance, a veteran from the war in

Afghanistan with a prosthetic leg and foot may approach the decision-making process for apparel, and specifically footwear, differently than he did prior to becoming disabled, and not just because of functionality needs. Another example is a child with autism, who may need special clothing to not only enable full functionality and expression, but to live a more satisfying life. Therefore, more research needs to be conducted on disabled consumers as a distinct segment of the clothing consumer population.

While disabled consumers may use clothing in some of the same ways as nondisabled consumers, many important differences may exist. The meaning of clothing can vary in different cultural and social environments. Thus, it is important to understand these differences across cultures and groups. Roach and Eicher (1973) suggest that the visual effect or total form of clothing can be analyzed by aesthetic components, such as colors or textures, and how these relate to one other. Meanings of clothing can also be linked to physiological, psychological, and philosophical considerations, as well as social and cultural aspects (Roach & Eicher, 1973). The authors point to the subjective nature of clothing evaluation and the process by which it acquires meaning. Thus, it is important to understand how clothing is evaluated and what it means for those with disabilities. Because the research on disabled consumers' use of dress and clothing selection is scant, a thorough understanding of their dress behavior is needed (Lamb, 2001; Miller, 1997).

Previous research regarding self-concept focuses on adolescents or children because self-concept is established during this time (Chapman, 1988). However, self-concept among adults who are disabled is equally important, particularly if the disability happened in adulthood. Another prominent research focus related to disabled individuals'

self-concept is self-esteem. Self-esteem is an evaluation of the self-concept and is defined as the subjective evaluation of self-worth or self-value (Arnold & Chapman, 1991). Most existing studies indicate that disabled consumers have lower self-esteem compared to that of nondisabled consumers (Burnett, 2006). However, an explanation as to why they have lower self-esteem is lacking, in as much as disability may not be the sole cause of low self-esteem.

In this dissertation, self-esteem, as a component of self-concept, is examined relative to clothing choice and meaning. Several researchers have examined the influence of the various dimensions of self-concept on consumers' behaviors (e.g., the relationship between low self-esteem and compulsive buying behavior) including those conducted by Lennon et al. (1999), Miller (1997), and Sontag and Lee (2004). However, such studies neither describe nor explain how disabled consumers' self-concept is related to their dress behavior.

Furthermore, in the preliminary qualitative study conducted for this dissertation, additional aspects of self-concept were mentioned by participants as being influential to their clothing selection and meaning creation with respect to clothing. These aspects of self-concept include self-efficacy, public self-consciousness, and achievement (i.e., state hope). Using these aspects of self-concept, this dissertation addresses a major gap in the literature by investigating how disabled consumers' self-concept directly relates to their use of clothing. Findings may also carry the field of study forward by investigating how these various aspects of self-concept indirectly influence clothing use through life satisfaction. Life satisfaction, which was one of the common traits possessed by participants with a positive self-concept in the qualitative phase of the dissertation is

therefore examined in terms of its relationship with disabled consumers' self-concept and clothing selection.

Purpose and Guiding Research Questions

The purpose of this dissertation is to investigate the relationships among various aspects of self-concept (i.e., self-efficacy, public self-consciousness, state hope, and self-esteem), clothing selection (i.e., individuality, assurance, and camouflage), and life satisfaction. This study aims to examine the impact that aspects of disabled consumers' self-concept have upon the types of clothing they choose to wear (i.e., clothing that expresses individuality, clothing that improves the emotional state, clothing that camouflages the body) and the satisfaction they experience in their lives. A goal of this study is to develop and empirically test a conceptual framework for understanding disabled consumers' self-concept and life satisfaction as related to their clothing selection.

Several research questions guided the development of the study, including both qualitative and quantitative kinds of questions.

Qualitative

1. What is it like to be a disabled clothing consumer?
2. What do disabled consumers take into consideration when they select clothing?
3. How do disabled consumers use apparel as a tool to express themselves?

Quantitative

1. What is the relationship between disabled consumers' perceived self-efficacy and their self-esteem?

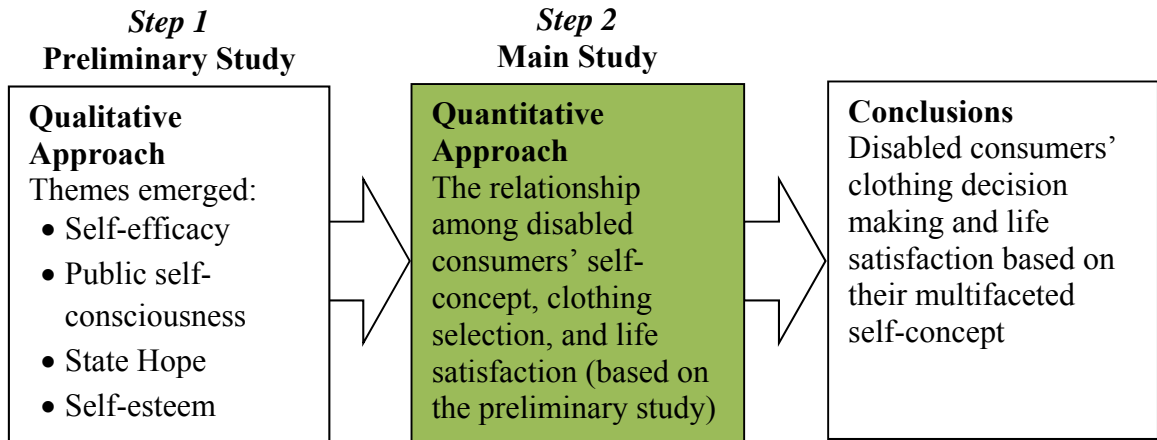
2. What is the relationship between disabled consumers' public self-consciousness and their self-esteem?
3. What is the relationship between disabled consumers' state hope and their self-esteem?
4. What is the relationship between disabled consumers' self-esteem and their clothing selection?
5. What is the relationship between disabled consumers' self-esteem and their life satisfaction?
6. What is the relationship between disabled consumers' life satisfaction and their clothing selection?

Methodological Considerations

The research design is based on a two-step process, as illustrated in Figure 4. Step 1 of the research design development was a preliminary qualitative study developed to explore issues important to the topic. Based on the literature, areas of discussion were outlined and interviews were conducted with disabled consumers. Using an interpretive framework and thematic analysis (Nelson, LaBat, & Williams, 2002), previously unidentified and distinct issues emerged in terms of clothing selection and meanings among disabled consumers. Findings from this preliminary study guided the development of the conceptual framework that is used in the dissertation. Additionally, concepts explored in previous research on self-efficacy (Judge et al., 1998), public self-consciousness (Kwon & Shim, 1999), degree of hope (Snyder et al, 1996), and self-esteem (Rosenberg, 1965) that were consistent with findings that emerged in the

preliminary study are also used in the conceptual framework. As step 2 in Figure 4, dissertation data collection focused on investigating the relationships among these aspects of self-concept, clothing selection, and life satisfaction. As will be discussed in full within Chapter III, this two-step process allowed for a more holistic understanding of disabled consumers' self-concept, clothing selection, and life satisfaction to emerge.

Figure 4. Process of Research Design Development



Definition of Key Terms

The following table provides definitions of key terms related to the study of disabled consumers, as well as terms that are applied throughout the dissertation.

Table 2. Definition of Key Terms

Key Terms	Definition
Assurance	One of several clothing selection dimensions; Interest in clothing as enhancement of security or feelings (Gurel & Gurel, 1979).
Camouflage	One of several clothing selection dimensions; Interest in clothing to hide one's figure or self-image (Kwon & Parham, 1994).
Clothing	Any tangible or material object connected to the human body. This encompasses such items as pants, skirts, and other objects related to body covering, including accessories, such as shoes, gloves, hats, bows, ties, jewelry, and the like (Kaiser, 1997).
Degree of Hope	Perceived achievement related to current goals. A snapshot of a person's current goal-directed thinking (Snyder et al., 1996). Also known as State Hope.
Disabled Consumer	A person who lacks ability to perform an activity which is considered normal for a human being (Ittyerah & Kumar, 2009).
Generalized Self-Efficacy	A person's beliefs about his/her capabilities to achieve certain goals or to deal with a variety of difficult situations (Bandura, 1977).
Individuality	One of several clothing selection dimensions; Interest in clothing as enhancement of individuality (Gurel & Gurel, 1979).
Life satisfaction	A global measure of a person's quality of life according to his or her chosen criteria. This also refers to subjective well-being used in the area of happiness economics (Shin & Johnson, 1978).
Nondisabled Consumer	A person without disabilities. An individual who does not lack ability to perform an activity which is considered normal for a human being (Ittyerah & Kumar, 2009).

Table 2. Definition of Key Terms (continued)

Key Terms	Definition
Public self-consciousness	An acute sense of self-awareness in public. A preoccupation with oneself, as opposed to the philosophical state of self-awareness, which is the awareness that one exists as an individual being (Kwon & Parham, 1994).
Self-confidence in clothing	A socio-psychological concept related to self-assuredness in one's personal judgment, ability, and power in clothing selection (Shim, Kotsiopulos, & Knoll, 1991).
Self-concept	Self-perception related to our attitudes, feelings, and knowledge about our appearance or abilities (Byrne, 1984).
Self-esteem	Individual feelings of self-worth (Kaiser, 1997) representing the positivity of a person's self-concept (Solomon, 2006).
State Hope	Perceived achievement related to current goals. A snapshot of a person's current goal-directed thinking (Snyder et al., 1996). Also known as Degree of Hope.

Organization of the Dissertation

Chapter I outlined the research study. The research purpose and objectives were included, as well as a discussion of the significance of the study. Key terms were also defined. Chapter II provides a review of literature related to the purpose of the study. Research on disabled consumers and self-concept is explored, as well as studies that examine life satisfaction. A review of theoretical frameworks used in previous research to examine consumers' clothing selection and life satisfaction is also included. Hypotheses are developed based on the literature and relative to the objectives of the study.

Chapter III describes the methodological approach used to test the research hypotheses. This chapter includes justification of the sample, description of the data

collection procedures, and the process of instrument development. Basic assumptions of the study are presented. Finally, statistical procedures that were employed during data analysis are outlined.

In Chapter IV, statistical procedures that were employed during data analysis as well as the statistical tests used are discussed. The results of hypothesis testing based on structural equation modeling are explained.

Chapter V discusses the findings of the study in relation to the research objectives. Implications and recommendations are also discussed. Finally, limitations of the study and suggestions for future research are provided.

CHAPTER II

REVIEW OF THE LITERATURE

Despite differences in physical or mental abilities, disabled consumers rely on dress to communicate personal and social identities much like nondisabled individuals. Consumers' social psychological factors, particularly those related to aspects of their self-concept (e.g., self-efficacy, public self-consciousness, state hope, and self-esteem) are known to play a significant role in consumer behavior in general (Yurchisin & Johnson, 2004). Additionally, life satisfaction has been shown to be related to self-esteem (Kim & Lennon, 2007) as well as dress behavior. Thus, the purpose of this dissertation is to examine the use and selection of clothing by disabled consumers relative to their self-concept and life satisfaction.

This chapter consists of four major sections which present a review of the literature regarding concepts important to the study. This chapter begins with a discussion of the dissertation's theoretical foundation. This section includes a review of literature related to self-concept, self-efficacy, self-consciousness, state hope, and self-esteem. In the second section, literature regarding disabilities and the disabled is discussed. In this section, classification of disabilities and research on self-concept and life satisfaction of disabled individuals is provided. In the third section, the literature exploring clothing and human behavior is examined. Studies of the internal and external meanings of clothing are discussed, as are studies on disabled consumers' clothing needs and selection. In

the fourth section, the conceptual framework for the study is explained, and in the final section hypotheses are developed.

Theoretical Foundation

This section introduces the concepts important to the theoretical foundation of the study. The theoretical foundation has as its base several concepts, including (a) self-concept, (b) self-efficacy, (c) self-consciousness, (d) state hope, (e) self-esteem, and (f) life satisfaction. In this dissertation, self-concept is considered to be a general concept that includes self-efficacy, self-consciousness, state hope, and self-esteem.

Self-Concept

According to Solomon (2006), the self-concept is defined as an individual's beliefs about his or her own qualities, and how he/she evaluates these qualities. Individuals can have positive overall evaluations of the self-concept. However, typically there are parts of the self that an individual evaluates more positively than others. For example, a female might have a more positive evaluation of her identity as a mother or a wife than she does about her professional identity.

The self-concept is related to the notion of a soul from a behavioristic perspective (Epstein, 1973). The self has been defined with regards to the "I" and/or the "me" concept. An individual can conceptualize the self by using all of the parts of life that are particular to that person. Theories of self-concept highlight how an individual's identity can be constructed through interaction with others, in that individuals can develop their self-concept using subjective experiences. Individuals can base their opinion of the self on their interpretation of how they think other people perceive them. This is a holistic

view of self-concept, which takes into account both the perceptions of the individual as well as his/her beliefs about others' perceptions of him or her.

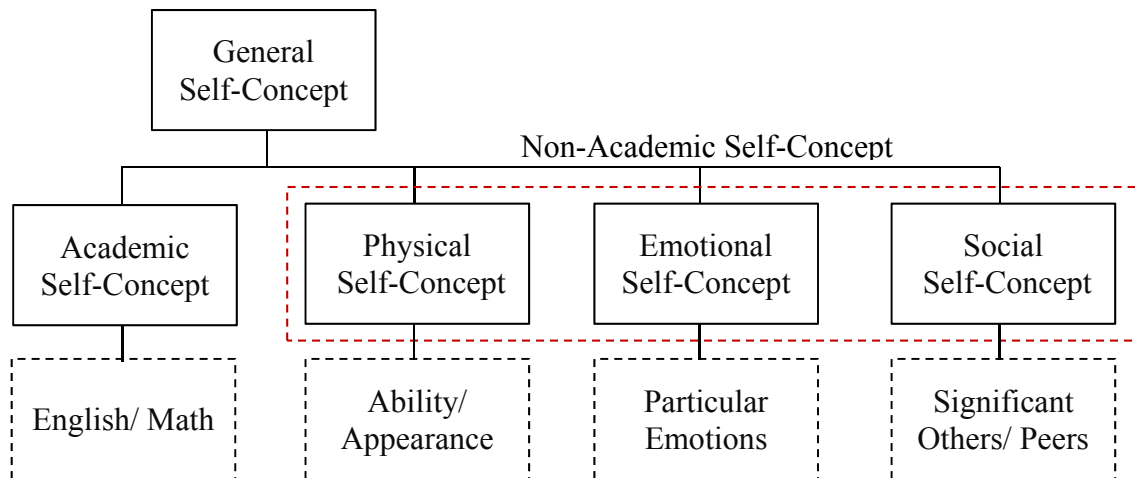
Allport (1955) attempted to understand self-concept by defining it as “all the regions of our life that we regard as peculiarly ours” (p. 40). He introduced the concept of the “proprium,” or the self-as-known. There are seven stages required to develop the selfhood, or the proprium. These stages include: (1) the development of the bodily self (e.g., an infant, aged 15 months, learns what the body parts are called), (2) self-identity (e.g., an infant, aged around one year, learns about his/her name and how he/she is called by others), (3) self-esteem (e.g., a child, aged between 2-4, learns about a type of self-confidence through the education process), (4) self-extension (e.g., a child, aged between 4-6, learns about the importance of self and personal possessions), (5) self-image (e.g., a child, aged between 4-6, has an opinion about the self and establishes a positive or negative self-image), (6) the self as a rational copier (e.g., a child, aged between 6-12, learns about the logical and rational process of thinking from attendance at school), and (7) propiate striving (e.g., a child, aged between 6 to 12, starts to think about his/her identity, such as “who I am”). As individuals progress through these stages of development, the proprium can be low if one has an inferiority complex or low self-esteem. However, the proprium can be improved by education and self-actualization through goal-directed thinking (Allport, 1955).

Similar to Allport (1955), Solomon's (2006) conceptualization of self-concept is multidimensional. The various dimensions of one's self-concept include: content (e.g., facial appearance), positivity (e.g., self-esteem), intensity (e.g., an affective evaluation,

whether positive or negative), stability over time (e.g., constancy of self-evaluation over time), and accuracy (e.g., a discrepancy between the actual self-concept and the perceived self-concept). James (1963) also emphasized the multidimensional nature of self-concept in his early theories. However, early empirical research on self-concept measured self-concept in a general sense rather than its specific dimensions (Wylie, 1979), resulting in a lack of theoretical models featuring the self as a multidimensional concept.

By the late 20th century, researchers began to measure the dimensions of the self-concept with more success. For example, Marsh (1989) found that the self-concept is multifaceted and can be hierarchically organized by age and/or gender. Self-concept can also be academic or nonacademic (Shavelson, Hubner, & Stanton, 1976). Academic self-concept is divided by subject-specific factors (e.g., mathematics, English). On the other hand, the nonacademic self-concept is divided into physical, emotional, and social self-concepts. Physical self-concept is classified by ability and appearance. Emotional self-concept is categorized depending on particular emotions (e.g., happy, satisfied, or angry). Social self-concept can be classified by how an individual is viewed when he/she is with significant others or peers. Figure 5 depicts the different dimensions of self-concept as conceived of by Shavelson et al. (1976).

Figure 5. The Hierarchical Organization of Self-Concept



Source: “Self-Concept: Validation of construct interpretations,” by Shavelson et al., 1976, *Review of Educational Research*, 46(3), 407-441 (p. 413).

In addition to self-reflection about one’s characteristics, self-concept is also determined in part by the social environment. Individuals compare themselves with others as they define their self-concept. Thus, theories of self-concept often emphasize how identity is constructed through interaction with others (Marsh, 1989). Pragmatic theories emphasize social processes involved in interacting within a community and relate to the postmodern view of self, which posits a relational perspective of self that is created as a person participates in various communities. According to Cooley (1902), an individual tends to project what impressions other people have of him/her. He called this self “the looking glass self” because an individual evaluates the self from interaction with others in a manner similar to the way one sees one’s self reflected in a mirror. Another view of the self, known as the dramaturgical concept of self, was introduced by Goffman (1959). Goffman’s idea of the dramaturgical concept of self describes the role

performances that individuals enact in creating an identity. The roles are associated with designated activities or behaviors that an individual needs to perform. If an individual, as a main actor of the performance, succeeds in the role performance, audiences (e.g., family or peers) view an actor, the individual, as he/she wants to be viewed.

As the preceding discussion highlighted, people's notions of themselves are complex and based on both their own thoughts about themselves as well as their beliefs about how they think that other people perceive them. Thus, the self can be better described as a socially-viewed, multifaceted self-concept. Some of the components of self-concept that may influence consumer behavior, particularly with respect to the clothing behavior of disabled consumers, include self-efficacy, self-consciousness, state hope, and self-esteem.

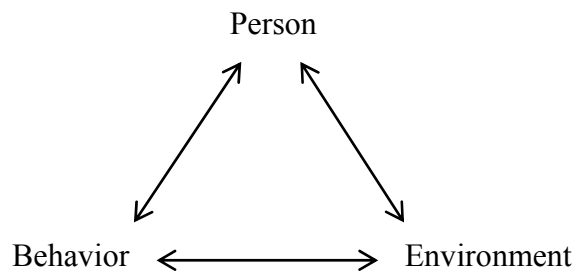
Self-Efficacy

One key component of one's self-concept is self-efficacy. Self-efficacy is defined as an individual's beliefs about the possession of capabilities required to accomplish certain goals. Self-efficacy theory was first introduced by Bandura (1977) in the article titled, "Toward a Unifying Theory of Behavioral Change." According to Bandura, self-efficacy can be referred to as perceived competence, an idea that originated from Bandura's Social Cognitive Theory (Bandura, 1962). According to Social Cognitive Theory (SCT), individuals are thought to be driven to learn by three types of interacting determinants: *personal factors*, *behaviors*, and *environments* (or situations) (see Figure 6). Personal factors include an individual's previous experiences and physiological elements. Behavioral factors include others' behaviors that can influence the individual's

behavior (e.g., observing a friend passing a test can influence an individual's behavior and self-efficacy to take that test). Environmental factors include the situation in which an individual experiences the self (e.g., the region where he/she lives or an educational atmosphere).

According to Bandura's theory, individuals learn and are motivated to do a certain behavior based on their previous behaviors, personal characteristics, or environments. Social Cognitive Theory highlights the reciprocal relationships among these three components, known as a "reciprocal triadic model" (see Figure 6). Individuals can learn from their own personal experiences (e.g., personal factors), as well as from the behavior of other individuals (e.g., behavioral factors), and from the learning environment or situation (e.g., environmental factors).

Figure 6. Social Cognitive Theory



Source: "Self-efficacy: Toward a unifying theory of behavioral change," by Bandura, 1977, *Psychological Review*, 84(2), 191-215.

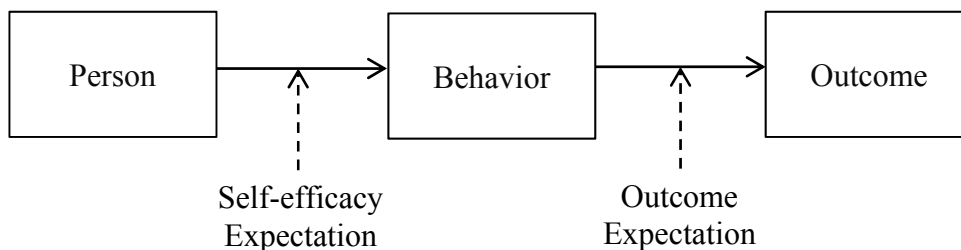
The Social Cognitive Theory has been used to explain mental processes as they are influenced by both intrinsic (e.g., personal and psychological) and extrinsic (e.g., behavioral and environmental) factors, which eventually bring about learning in an individual. Individuals can learn and are motivated to do a certain behavior based on their personal characteristics or intrinsic states, such as emotions or cognitions. Bandura found that individuals' beliefs about their capabilities to learn a certain thing influence both their motivation to learn and their actual learning.

Social Cognitive Theory implies that the different processes concerning learning can be explained by first analyzing mental processes (Bandura, 1962). SCT posits that with effective cognitive processes, learning is easier and new information can be stored in the memory for a long time. On the other hand, ineffective cognitive processes can result in learning difficulties that can be seen anytime during the lifetime of an individual (Bandura, 1977). Individuals who find that their efforts to learn have the desired end result develop a sense of efficaciousness, while those with learning difficulties continue to experience feelings of ineffectiveness.

According to Wood and Bandura (1989), perceptions of self-efficacy vary and depend on three dimensions of a given task. The first dimension is the level of magnitude (e.g., level of task difficulty). The second dimension is strength (i.e., certainty of performing a specific task at a difficult level successfully). The third dimension is generality (e.g., magnitude of beliefs that generalize across tasks and situations). Bandura (1977) used the self-efficacy concept to understand the relationship between an individual and his/her own behavior, and suggested that an individual will have two

expectations of the final outcomes from his/her own behavior. First, an individual has an expectation about his/her ability to perform a certain behavior. This is what is referred to as self-efficacy. Second, an individual has an expectation about the outcomes resulting from that behavior. According to Bandura (1977), people cannot accomplish the expected outcome if they have low or no expectations about their ability to perform the behavior required to achieve the outcome. Thus, it is important to understand an individual's beliefs about his/her own capabilities to do a behavior in order to understand his/her actual behavior and outcome (see Figure 7).

Figure 7. Application of Self-Efficacy Theory



Source: "Self-efficacy: Toward a unifying theory of behavioral change," by Bandura, 1977, *Psychological Review*, 84(2), 191-215.

Self-efficacy has been applied across fields of study, including social psychology, health, and education (Annesi, 2010; Bandura, 1997; Judge et al., 1998). For example, Annesi (2010) investigated exercise self-efficacy (e.g., perceived ability to do a certain exercise) and its influence on body satisfaction in obese women. She found that perceived exercise self-efficacy negatively influenced obesity. Thus, women with high exercise self-efficacy are more likely to follow the exercise program and lose weight than women

with low exercise self-efficacy. Positive psychological states of individuals, such as life satisfaction and job satisfaction, have often been found to be consequences of positive self-efficacy (Oyedele & Simpson, 2007).

Bandura (1997) found that self-efficacy is positively related to an individual's efforts to solve problems in educational settings. Because Bandura's (1997) self-efficacy concept is task-specific, Judge et al. (1998) extended the self-efficacy concept more globally. Referred to as generalized self-efficacy, their concept is more general than task-specific and concerns a person's general perceptions of his/her fundamental capability to cope with life situations. Similarly, self-efficacy can be measured by either task-specific scales or generalized scales (Judge et al., 1997). Task-specific scales of self-efficacy work better for the study of specific efficacy situations (e.g., exercise self-efficacy). Generalized self-efficacy is often viewed as a replication of one's perceptions of his or her fundamental ability to cope with life's demands. Therefore, generalized self-efficacy would most likely be more useful for understanding disabled individuals' perceptions of their capabilities of handling their life situation in general. Based on perceptions of their generalized self-efficacy, disabled individuals will likely evaluate themselves differently and have different levels of self-esteem. For example, those disabled individuals who believe in their ability to deal with any given situation will be more likely to have high positivity about their self-esteem than those who do not.

Self-Consciousness

In addition to generalized self-efficacy, self-consciousness is another component of self-concept that may be important for understanding disabled consumers. Fenigstein, Scheier, and Buss (1975) defined self-consciousness as an individual's self-attention. Self-consciousness is an enduring tendency because it establishes and sustains itself over time. An individual can experience different levels of self-attention depending on the time and situation (Fenigstein, 1979). Argyle (1969) theorized that individuals differ with respect to degree of self-attention, and that an individual's self-attention may be greater when in social environments than when he or she is alone. For example, we are often more aware of ourselves in public environments, such as when we are speaking in front of an audience. An individual's degree of self-consciousness affects his/her behavior differently, such that individuals who are extremely self-conscious may avoid speaking in front of others altogether.

According to the literature, there are two dimensions of self-consciousness (Fenigstein, 1979). The first dimension is private self-consciousness and the other is public self-consciousness. Private self-consciousness is the stable awareness of an individual's personal feelings and thoughts, and relates to the individual's concerns or attention toward the personal and private self. In contrast, public self-consciousness is related to an individual's self-attention in the public environment. For example, an individual who cares a great deal about what other people think about her/him has a high public self-consciousness. A high degree of public self-consciousness can result in social anxiety and a heightened state of self-monitoring (Fromson, 2006). Because dress can be

a public action, both in terms of purchasing as well as wearing, it is likely that public self-consciousness has a greater impact on dress behavior than private self-consciousness. However this has not been explored in the literature.

An individual's level of public self-consciousness can differ based on his or her level of social anxiety or individual characteristics. For example, disabled individuals may differ in level of self-consciousness due to the severity and duration of the disability. Individuals who were born without legs may feel differently with respect to public self-consciousness than individuals who have temporarily lost the use of their legs when they were broken in a car accident. Whether or not disabled individuals experience social discrimination or are treated differently than nondisabled individuals can also affect their levels of public self-consciousness, as either can make disabled individuals feel uneasy in social situations. Thus, it is important to examine the public self-consciousness of disabled individuals considering different situations and different types of disabilities.

State Hope

As discussed in Chapter I, hope is the emotional outlook that an individual has toward his or her life, a goal, or the fulfillment of something in particular (Snyder et al., 1996). State hope is defined as the desire for fulfillment in regards to certain activities or life in general (Osterhoudt, 1978). An individual's state hope can influence his or her emotions and behaviors. Snyder et al. (1996) defined state hope as one's current goal-directed thinking (p. 321), as related to his or her previous experiences and self-assessment. In terms of consumer self-concept, Solomon (2006) explained that state hope is the intensity of the emotional aspect of self-concept. State hope is related to the actual

accomplishment of certain goals, and individuals who experience high state hope are more likely to be satisfied with their self-concept. Thus, as Solomon explained, consumers who have high state hope will be likely to have positive emotional perspectives of their self-concept.

In the past, scholars have defined hope as a unidimensional concept related to the overall thinking that goals can be met (Stotland, 1969). Snyder et al. (1996) expanded the unidimensional construct of hope and proposed a goal-directed definition comprised of two important concepts: pathways thinking and agentic thinking (Curry et al., 1997). Pathways thinking is defined as thinking related to the planning of various methods to achieve goals. Agentic thinking is defined as thinking related to goal-directed determination. For example, pathways thinking involves an individual's various options to meet a goal. Agentic thinking involves the motivations and inner states related to achieving that goal.

State hope is important to understanding goal-directed thinking and the big picture of self-concept among disabled individuals. State hope can also be used to understand the previous experiences of achieving goals among individuals with disabilities because individuals often perceive their potential by reflecting on previous successful experiences. Specifically, individuals with disabilities may have higher state hope than nondisabled individuals because success is accomplished with or in spite of their disabilities. Thus, disabled individuals may have a heightened sense of hopefulness or hopelessness during various times in their lives. As with other emotions and cognitions, state hope can be communicated to others via the clothing that one chooses to wear. For

instance, hopeful people may wear bright, cheerful colors while hopeless people may wear darker, more subdued colors. This dissertation investigates how state hope is related to and reflected in the clothing decisions of disabled individuals.

Self-Esteem

Self-esteem is related to a person's beliefs about his/her own attributes and how he/she evaluates these qualities (Solomon, 2006). Self-esteem is explained as an overall feeling of self-worth which is relatively constant over time. The term self-esteem can often be used to mean "pride, egotism, arrogance, honor, conceitedness, narcissism, and sense of superiority" (Baumeister, Smart, & Boden, 1996, p. 5). It is the favorable self-evaluation which is often related to emotions or performance in an individual's life (Baumeister et al., 1996). Thus, other aspects of self-concept, such as self-discrepancy and body image have been frequently studied as antecedents of self-esteem (Jung et al., 2001). General life evaluation, such as life satisfaction, has been widely studied as a consequence of self-esteem (Kim & Lennon, 2007).

For example, high self-esteem is associated with better health and satisfaction whereas low self-esteem is linked to risky health behaviors (such as eating disorders) and dissatisfaction (Kim & Lennon, 2007). Kim and Lennon (2007) found significant relationships between low self-esteem and appearance satisfaction. One exceptional finding about self-esteem and behavior was that too high self-esteem, or egoism, is related to aggressive behaviors (Baumeister et al., 1996). Self-esteem is often used to measure psychological positivism of self-concept. In other words, self-esteem represents the evaluative component of one's self-perception.

While self-esteem, state hope, public self-consciousness, and generalized self-efficacy are all aspects of self-concept that have an impact on consumer behavior in general, these components of self-concept seem to be particularly important for disabled consumers. In this dissertation, their significance relative to life satisfaction is examined because it is important to understand how disabled individuals' life satisfaction is related to self-concept.

Life Satisfaction

Life satisfaction is considered to be an important measurement to understand individuals' psychological perceptions about their lives. Scholars agree that subjective well-being can convey significant information about disabled individuals' underlying emotional states. Subjective well-being is a broad category, including individuals' emotional responses and life satisfaction and is predicted by self-esteem (Diener et al., 1985). Thus, disabled individuals' self-esteem and other aspects of their multifaceted self-concept can influence their subjective well-being.

Specifically, subjective well-being consists of an affective component and a cognitive component. The affective component of subjective well-being is the emotional evaluation of life based on hedonic reasons and feelings. In contrast, the cognitive component of subjective well-being is based on given information or criteria used in the evaluation of life. Thus, individuals make judgments about their lives based on these two components. As life satisfaction is a person's own evaluation of her/his life within his or her own frame, cognitive and affective elements impact overall subjective well-being.

Specifically, this dissertation focuses on the affective element of life satisfaction to evaluate subjective perceived life satisfaction.

Subjective well-being, or an individual's current evaluation of his or her happiness, is how life satisfaction is measured. This evaluation is often expressed in affective terms, such as happiness or joyfulness (Schwartz & Strack, 1999). Many individuals argue that happiness is difficult to measure since the concept of happiness is subjective (Diener et al., 1985). Thus, methods used to measure subjective well-being have been continuously improved as interest in studying life satisfaction has increased (Schwartz & Strack, 1999). For example, psychologists who are interested primarily in negative emotions, such as depression and anxiety, are turning to exploring positive emotions and feelings of well-being (Diener et al., 1985). For this reason, the Satisfaction With Life Scale (SWLS) was developed by Diener et al. (1985) and has since been widely used. This scale was employed in the present study.

While previous researchers (Csikszentmihalyi, 2000; Xiao & Kim, 2009) have demonstrated the existence of a relationship between aspects of the self (e.g., values, self-esteem) and life satisfaction as well as a relationship between life satisfaction and clothing selection for nondisabled individuals, the impact of life satisfaction on the clothing consumption behavior of disabled individuals has not yet been thoroughly examined. More work is needed in this area, as life satisfaction was a key concept that influenced the clothing selection of disabled individuals in the preliminary qualitative study for this dissertation.

Disability and the Disabled

What is disability? Who are disabled consumers? Why do we need to know about disabled consumers? Disability can be explained as both a personal and a social issue (Lamb, 2001), meaning that disability affects the lives of those individuals who are disabled as well as the lives of nondisabled individuals living in the same community. As discussed in Chapter I, disability is defined as the lack of ability to perform an activity which is considered normal for human beings (Ittyerah & Kumar, 2009). Disabled individuals experience limitations in terms of performing activities and behaviors that are generally accepted as essential to everyday life simply based on the ways in which these activities and behaviors are expected to be performed in a society. Because disability represents any restriction or prevention of the performance of an activity which results from an impairment, disease, or disorder, the disability is the outcome of the impairment, disease, or disorder (Rudberg et al., 1993). Conversely, the impairment, disease, or disorder is the proximal cause of one's disability. As previously discussed, disability is classified by type and can be defined differently depending on the type and nature of the disability, as well as the various activities disabled individuals are unable to perform as expected. The following section presents: (a) a classification of disabilities, (b) an examination of research related to individuals with disabilities, and (c) a discussion of self-concept relative to disabled individuals.

Classification of Disabilities

Humans classify the things that exist through perception and knowledge (McColl & Bickenbach, 1998). For example, we classify the things we wear into various groups

by their function and shape: skirts, pants, t-shirts, jackets, and so on. Clothing can also be classified by its purpose: formal wear, casual wear, sleep wear, bridal wear, and so on. This classification happens in our everyday lives, even though we may not be conscious of it.

Like other things that exist in our world, disabilities can also be classified. Disabilities can be categorized by type, duration, severity, and progression (McColl & Bickenbach, 1998). Disabled consumers can be divided into two groups based on the type of disability they experience: physical or mental. Physical disabilities include vision or mobility impediments, such as blindness, deafness, or any orthopedic handicaps. Mental disabilities include neurological disorders (e.g., a mentally retarded person).

Disabled individuals can also be categorized by the duration of time with which they have lived with the disability. Disabled persons can be either congenitally disabled or accidentally disabled. Congenital disabilities mean innate defects which one has had from birth. Accidental disabilities include any handicaps which a person accidentally receives after birth (e.g., lost legs from a war or body damaged by a car accident).

Disabled individuals can be divided into groups based on the severity of the disability. Individuals with comparatively less severe disabilities are referred to as “temporally disabled,” and those with comparatively more severe disabilities are referred to as “permanently disabled.” Temporal disabilities include accidental handicaps which can be recovered from; permanent disabilities include both congenital and accidental handicaps which cannot be recovered from.

A disability can also be classified by whether it is progressive or regressive. A progressive disability is one that gradually progresses, while a regressive disability is one that forces an individual to return to a less advanced stage of development. For example, a child with regressive autism tends to revert back to a less developed stage.

A disability can also be assessed by rating an individual's function in (a) physical, (b) psychological and (c) social terms. First, the physical component of the disability can be assessed by rating degree of mobility or vision impairment. Second, the psychological component of the disability, such as learning or communication difficulties, can be evaluated by the degree of severity. Third, the social component of the disability is often rated by the amount of social oppression experienced by the individual and the extent to which the disability allows the individual to behave in a socially acceptable manner. Both physical and mental disabilities can have physical, psychological, and/or social components associated with them.

In addition to type, duration, severity, and progression, disabilities can also be classified based on the types of activities that are inhibited by the disability. Today, the most often used disability classification of this sort is the World Health Organization's International Classification of Impairments, Disabilities, and Handicaps (ICIDH, 1998). This classification system is composed of three subdivisions--mental, sensory and physical disabilities--and is organized in terms of the major types of daily life activities that are affected by the disability. For example, a disability can have an impact on personal care (e.g., dressing), movement (e.g., walking), and body disposition (e.g.,

cooking) (see Table 3). These major categories of activities are further divided into specific contexts impacted by the disability.

A disability can be categorized by whether an individual has a behavior, communication, or a personal care disability. Then, details about the type of disability are indicated by specific contexts (e.g., communication disabilities can be subcategorized by speaking, listening, or seeing). For a personal care activity, further detail allows an individual to indicate whether the personal care activity that is affected is related to excretion, dressing, personal hygiene, or feeding. Shown in Table 3, the classification of a disability is hierarchical and involves subcategorization by types, contexts, and severity.

Table 3. Major Categories of the WHO 1980 Disability Classification

<i>Classification of Disabilities</i>	<i>Sub-Classification of Disabilities</i>
Behavioral Disabilities	Awareness disabilities Disabilities in relations
Communication Disabilities	Speaking disabilities Listening disabilities Seeing disabilities
Personal Care Disabilities	Excretion disabilities Personal hygiene disabilities Dressing disabilities Feeding and other personal care disabilities
Locomotor Disabilities	Ambulation disabilities Confining disabilities
Body Disposition Disabilities	Domestic disabilities Body movement disabilities
Dexterity Disabilities	Daily activity disabilities Manual activity disabilities
Situational Disabilities	Independence and endurance disabilities Environmental disabilities
Particular Skill Disabilities	Unallocated codes used for work place assessment
Other Activity Disabilities	Unallocated codes for items not covered nor easily allocated in the rest of the classification

Source: "Introduction to Disability," by McColl and Bickenbach, 1998, WB Saunders Company Ltd: UK (p. 22)

Research Related to Disabled Individuals

Although there are different types of disability, previous research has neglected to profile individuals' needs based on the type of disability they have, and has typically compared disabled individuals to nondisabled individuals. The National Organization on Disability (NOD) provides annual survey data on individuals with disabilities. According to this data, life satisfaction among disabled individuals is lower than nondisabled individuals, as individuals with a disability are less likely to socialize or attend religious services than are nondisabled individuals (NOD, 2004). By comparing all disabled individuals, regardless of type of disability, to nondisabled individuals, the influence of type of disability on aspects of self-concept remains unknown.

Understanding the needs of individuals with all types of disabilities has become increasingly important in recent years as more and more disabled individuals enter mainstream society. In fact, participation in society with nondisabled individuals seems to be one way to decrease some of the inequities experienced by disabled individuals in the past. For example, in one study by McColl and Bickenbach (1998), disabled individuals appeared to have lower levels of educational attainment than nondisabled individuals, a reflection of the historical exclusion of disabled individuals from the mainstream educational system (see Table 4). However, the study found that active involvement of disabled persons in educational environments with nondisabled individuals can decrease the difference in educational attainment levels between disabled and nondisabled individuals.

Table 4. Percentage Distribution of Educational Attainment of Persons by Disability Status, 1986 and 1994

Educational Attainment	With disabilities		Without disabilities	
	1986	1994	1986	1994
Less than high school	40	25	15	12
High school graduate	31	30	37	41
Some college	15	28	25	26
Four-year college graduate or more	14	16	23	21
Total	100	100	100	100

Source: "Introduction to Disability," by McColl and Bickenbach, 1998, WB Saunders Company Ltd: UK (p. 37)

Recently, public policy regarding disabilities in the United States has focused on enhancing socio-economic conditions among the disabled (Altman, 2001). In addition, the U.S. government's commitment to the Americans with Disabilities Act of 1990 (ADA) has helped to reduce discrimination and provide more opportunities for disabled individuals in the workplace. With more disabled individuals actively involved in work and social environments comes greater acceptance of their participation within society as a whole. These social changes may have had an impact on the ways in which disabled individuals comprehend their disability, and, consequently, develop their identities and sense of self (Altman, 2001; Morris, 1991). Because self-concept has an impact on behavior, investigating self-concept as it pertains to different types of consumers can help marketers understand and potentially predict behavior of different types of consumers more broadly. Because disabled individuals are participating more actively in society, disabled individuals' clothing needs have changed (Kidd, 2006). However, even though there are different types of disabled consumers who have different clothing needs,

existing research has neglected to examine these differences. Consequently, little is known about the clothing choices of disabled individuals, particularly the relationship between clothing and self-concept. Moreover, the needs of disabled consumers relative to various social and occupational environments remain largely unexplored in the literature.

Self-Concept of Disabled Individuals

As discussed earlier, self-concept is the self-perception related to attitudes, feelings, and knowledge about our appearance or abilities (Byrne, 1984). Social self-concept refers to one's social impression and the consideration of public opinions about the self (Lamb, 2001). Because consumers' self-concept can influence their buying and dress behavior, it is important to study it relative to disabled consumers.

Chapman (1988) studied the notion of self-concept among children with disabilities and found that because self-concept is a part of the learning process, learning disabilities can influence self-concept. He examined the role of motivation in self-concept and found that disabled individuals with a positive self-concept usually tried harder when the work was difficult, while disabled individuals with a negative self-concept usually reduced their efforts and gave up when faced with challenging tasks. Using the Piers-Harris (1964) scale to measure children's own self-perceptions, Chapman (1988) found that students with disabilities have more negative self-concepts compared to nondisabled students. However, Kaiser, Freeman, and Wingate (1985) found that apparel can be used for rehabilitation, or building disabled consumers' life skills and enhancing their self-esteem, and Lamb (2001) found that disabled consumers use clothing to improve their

appearance and self-perception. Specifically, disabled individuals may use clothing as a tool to enhance self-concept and improve actual competency or behaviors.

Although studies such as Chapman's (1988) provide interesting findings about children's self-concept (e.g., the relation between self-concept and learning process), a gap exists in the research. Most research on disabled individuals' self-concept has focused on adolescence or childhood because self-concept is established during these periods. However, the self-concept of disabled adults needs to be examined, particularly when the disability occurs in adulthood.

Two prominent points of departure in research on disabled consumers' self-concept relate to the components of self-efficacy and self-esteem. Brand et al. (2010) examined the importance of patients' self-efficacy in recovering from injury during the rehabilitation process. They found that the rehabilitation process can be shortened for patients with high self-efficacy. The work of Brand et al. (2010) suggests that self-efficacy might also be important for understanding disabled individuals' self-concept and the effects of self-efficacy on their life satisfaction.

In addition to self-efficacy, self-esteem has also been examined with respect to disabilities in adults. According to a study by Arnold and Chapman (1991), individuals with physical disabilities have lower self-esteem when compared to that of nondisabled individuals. However, the authors do not provide an explanation as to how or why. For example, level of self-esteem can differ based on the severity or duration of a disability, a distinction which has not been examined in previous research (Barnwell & Kavanagh, 1997). Various reasons why disabled consumers have low self-esteem may exist (e.g., past experiences or personal characteristics), and if these reasons are known, the ways

they may be addressed to help improve self-esteem can be explored. Additional research is needed to make these connections and more fully understand the relationship between self-esteem and disability.

Although no research has been conducted on public self-consciousness and state hope, these seem to be important components. The level of public self-consciousness one has can differ by one's level of social anxiety or individual characteristics. For example, disabled individuals differ in their levels of self-consciousness due to the severity and duration of their disabilities (Grewal et al., 2002). Moreover, whether or not they experience social discrimination or are treated differently can affect their level of public self-consciousness (Grewal et al., 2002). That is, social discrimination can affect their level of public self-consciousness, making them feel uneasy about themselves in social situations. Thus, it is important to examine disabled individuals' public self-consciousness as an aspect of their self-concept.

State hope is central to understanding goal-directed thinking and the big picture of self-concept among disabled individuals. State hope can also be used to understand previous experiences with achieving goals among individuals with disabilities because individuals often view their potential behaviors by reflecting on their previous successful experiences. Specifically, individuals with disabilities may have higher state hope than nondisabled individuals when success has been accomplished even with their disabilities.

In line with the self-concept, disabled consumers' public self-consciousness or how public self-consciousness is developed is important to understanding their clothing selection and use. Lamb (2001) explored the social view of disability by comparing

individual and social models of disability to understand how individuals with disabilities construct and interpret their appearances. Lamb pointed out that individuals with disabilities experience social oppression in addition to their physical or mental limitations. Thus, she emphasized the importance of changing social perceptions in regards to individuals with special needs.

As the research conducted by Lamb (2001) and Kaiser, Freeman, and Wingate (1985) highlights, clothing can be used by disabled individuals to express their current understanding of themselves or to enhance their feelings about themselves as individuals. In its ability to express personal characteristics about the wearer, clothing is a unique and interesting product category to study with respect to disability.

Clothing and Human Behavior

Most individuals are aware of the idea that the clothes they wear have some sort of meanings associated with them. For example, a garment may evoke special memories about a person or event. The meaning of clothing has been the topic of investigation for centuries (de Montaigne, 1575 as cited in Johnson, Torntore, & Eicher, 2003) because of the importance of clothing as a tool to express the self and to socialize individuals within a culture. Clothing and appearance are visible elements used to identify and differentiate ourselves as well as others (Inglessis, 2008). Thus, clothing is more than just a way to cover the body; it is an expression of individual, social, and cultural identity. Research that positions dress as a meaningful tool to identify the self and communicate with others is discussed in the following section, followed by an examination of the few studies that look specifically at dress and disabled consumers.

Meanings of Dress

Meaning, as defined by the fields of semiotics, communication, social psychology, and anthropology, relates to ideas about certain things (Inglessis, 2008). Clothing has meaning because it is linked to an individual's experiences, understanding, and communication (Barnard, 2002), making it both objective and subjective. de Saussure et al. (1974, as cited in Johnson et al., 2003) posited two different dimensions of clothing meaning: *denotational* and *connotational*. Denotation is defined as the initial, literal meaning of a certain thing (Barnard, 2002). Thus, the denotational meaning of clothing refers to what the clothing itself is, or its function (e.g., a skirt). Connotation involves the abstract and symbolic meanings of an object. Connotational meaning is associated with the word or the image that individuals think of relative to the object. The connotational meaning of clothing may be different for each person and is therefore subjective, while the denotational meaning of clothing is more objective. As an object, clothing may have one literal denotation but several different connotations. However, Barnard (2002) insists that these two types of meanings need to be linked and explained at the same time, and that it is important to think about denotation as a fundamental meaning onto which connotational meaning is added.

The basic function of clothing is related to its literal meaning or its denotational meaning. In other words, the facts about the garment represent the denotational meaning. For example, the denotational meaning of a skirt is concerned with what the skirt is made of, when and where it was made, worn and so on. The meaning of the skirt is related to its protective or basic purpose, which represents the intrinsic characteristic of covering the

body with clothing (Flügel, 1930 as cited in Johnson, Torntore, & Eicher, 2003). This basic meaning of clothing is often a fundamental reason for an individual's clothing selection. Yet, this basic function can vary across cultures. For example, wearing miniskirts during winter in modern societies is evidence that the society is not relying solely on clothing to protect the body from the harsh winter weather. In this case, the connotational meaning of clothing is applied to the skirt (e.g., it is a symbol of fashion). Clothing meaning is used to shape an individual's identity, as it communicates who that person is in social terms. Clothing, therefore, has meaning for both the individual (internal) and society (external).

Internal Meanings

One of the earliest scholars to write about why humans wear clothing was de Montaigne (1575, as cited in Johnson et al., 2003). The question of why is essential to understanding how individuals choose certain clothing items and the meanings they have associated with them. de Montaigne sought to explain why individuals adopted clothing as an artificial but meaningful form of protection from the physical environment. For de Montaigne, custom was a primary motivation for dressing the body. He anticipated Darwin's Theory of Evolution to answer why protection from environmental surroundings was the main motive for dressing the body. Moreover, he explained dressing the body and reasons for wearing clothing within a cultural perspective.

In 1916, several centuries after de Montaigne, Bliss (as cited in Johnson et al., 2003) examined why individuals wear clothes by using anthropological and psychological perspectives to explain the origins and functions of clothing. Bliss pointed

out that humans are individuals who are incomplete and unfinished compared to other beings in nature. Thus, clothing reflects our conscious or unconscious ideas of the self and is used to help complete the self.

Dearborn (1918, as cited in Johnson et al., 2003) sought to examine clothing in terms of its physiological and applied psychological aspects. He attempted to find scientific laws appropriate to dressing the body and examined the relationship between clothing and the skin. He defined clothing as a meaningful association between the body and its larger environment, whether self or society. Dearborn's physiological and applied psychological approach helped to explain the physical connections between the body and clothing. Yet, he saw clothing as more than just protection, in that it is an important method for projecting one's personality within his/her environment.

According to Lotze (1887, as cited in Johnson et al., 2003), clothing can give an individual a feeling of being. For example, if an individual wears a uniform, he/she will have a feeling of belonging as he/she conforms to a group. Roach and Eicher (1973) posit that self-decoration can be used to increase an individual's self-esteem or self-confidence, or, conversely, may make one self-conscious and shy. The meaning of clothing as self-expression explained by previous writers provides direction to explore the meaning of clothing in terms of self-identification, which relates to the internal and psychological aspects of clothing. In addition to the internal aspects of clothing, there are also external aspects of clothing related to one's place or position within society. An individual not only exists as a single human being, but lives as a social being by interacting with others.

Ultimately, clothing plays an important role with respect to an individual's involvement within society.

External Meanings

Spencer (1896, as cited in Johnson et al., 2003) was concerned with dressing the body and its importance from a sociological perspective, and thus examined clothing as a tool to express social status or to display identity in social terms. Crawley (1912, as cited in Johnson et al., 2003) went on to conceptualize clothing as a tool for extending the body's competencies and for displaying social relationships. Compared to previous writers who discussed clothing as protection for the body and emphasized the internal meanings of clothing, Crawley argued that clothing allows for extension of the passive self to the active self, and is therefore considered as a second skin for the body. For Crawley, clothing is a tool to express religious and social views of human beings, as well as how they adapt to their environment.

Rosencranz (1972) used the term "clothing symbols" to explain the meaning of clothing, positing that clothes are valuable because they link the experiences of individuals with others. The types of symbols Rosencranz (1972) discusses are individuality, conformity, and status. For example, the tendency of adolescents to conform to the clothing of their peers illustrates how conformity can be expressed by clothing. As another example, the socio-economic status of a person can be communicated by clothing, such as designer brand clothing. For Rosencranz (1972), work, leisure, sexual attraction, and masculinity/femininity are all social meanings that can be symbolized by clothing. For instance, a business person may wear a suit when

he/she is in the office because that individual wants to communicate competency and professionalism to others at work.

Communication is possible through clothing because it is a symbol and a symbol is an object that denotes a bigger object (Morris, 1955). Damhorst (1985) studied the meanings of clothing in social contexts and found that clothing takes on meaning within the context in which it is worn. For instance, a suit worn in the workplace takes on a different meaning than a suit worn in a wedding or at a funeral. It is for this reason that DeLong (1987) suggested the importance of considering physical surroundings and the cultural environment of the person when determining meaning.

Roach-Higgins and Eicher (1992) highlighted the fact that individuals use apparel for social interaction as well as identification purposes. The authors stressed the relationship between identity and society by outlining a broad and holistic view of the social aspects of clothing. For the authors, clothing is an effective means of communication during social interaction with others, as it helps to establish one's identity and to read the identities of others. Such concepts influence how an individual selects clothing and the meanings behind it (Roach-Higgins & Eicher, 1992). Because individuals express their social identity through clothing, it is important to consider the influence of all aspects of a social context on how individuals employ and understand clothing meanings. However, as humans, we are all social beings and need to interact with others in society. Clothing plays a significant role in this interaction. Society may expect different clothing meanings to emerge depending on characteristics possessed by

the individual, such as men vs. women, young vs. old, and disabled vs. nondisabled individuals.

Disabled Consumers

Attention to the clothing needs of consumers with disabilities has increased as disabled consumers have increased their participation in social and occupational activities (Newton, 1984-1985). Some research about disabled consumers and their shopping behaviors as well as shopping restrictions has been conducted to better understand disabled individuals as consumers (de Klerk & Ampousah, 2002) and their special clothing needs (Kidd, 2006). However, efforts to understand disabled consumers are recent and not yet fully developed (Burnett, 2006). Lamb (2001) pointed out that disabled consumers are excluded or discriminated against in regards to the market, as the primary interest has been nondisabled consumers. Therefore, very little research on disabled consumers and their clothing has been conducted. In this section, the few studies that exist related to disabled consumers' clothing needs and selection are discussed to better understand what we know and do not know about this particular consumer group.

Clothing Needs

Clothing designers often instinctively design for abled-bodied consumers and thus are unaware of the needs of consumers with disabilities. As such, research about disabled consumers' dress tends to focus more on their special needs, which are often neglected in clothing design situations. In particular, disabled consumers' special fit and design needs have been investigated by several researchers. For example, Reich and Shannon (1980) investigated the clothing needs of a sample of 319 individuals with disabilities. Based on

the physical restrictions caused by participants' disabilities, they established six common groups of physical disabilities and provided recommendations for addressing the concomitant clothing needs to manufacturers, educators, retailers, and professionals.

Similarly, Reich and Otten (1991) studied the special clothing needs of consumers with rheumatoid arthritis, or osteoarthritis. Clothing selection, dressing, and self-image can all be influenced by the cumulative effects of aging. Individuals suffering from the physical effects of arthritis often find that their clothing lacks comfort and is unsuitably designed. Furthermore, proper fit of clothing is a big problem, as is manipulating fasteners due to limited hand and wrist movement. The study revealed that turtlenecks, long and set-in sleeves, and back closures are difficult clothing design features for women with arthritis, and pullover sweaters, t-shirts, and ties are difficult for men. The authors provided suggestions as to how to improve clothing design for individuals with arthritis (e.g., front vs. back openings, providing more give in waistlines and larger openings for pants and skirts).

Kidd (2006) investigated specific design applications relative to four disabled consumers. She developed a creative design project to make custom-designed, special occasion dresses for four women who have spina bifida or osteogenesis imperfect, which are congenital spinal disabilities. Due to their innate spinal disorders, they had difficulties finding and wearing clothing, so Kidd designed special dresses for them. The author proposed that draping the sample garments directly on the body is the most successful method of achieving good fit and creating the illusion of body symmetry and proportion

for individuals with spinal disabilities. Kidd also suggested specific fitting techniques that can be utilized for other populations with disabilities.

Carroll and Kincade (2007) developed a prototype garment to meet the special needs of consumers with disabilities after interviewing nine working women with disabilities. By understanding the apparel product and retail environmental needs of consumers with physical limitations, an inclusive design framework for apparel product development for individuals with physical disabilities was developed. The authors found that working women with various physical disabilities have similar clothing needs, but that current industry perceptions about individuals with disabilities creates the greatest barrier for addressing them.

Although disabled consumers' special clothing design needs have been investigated, there exists very little information as to reactions to or satisfaction with clothing resulting from the new designs. Therefore, how disabled consumers perceive and respond to design needs investigation. Another gap in the existing research has to do with fashionability. That is, the fashionability of special designs for disabled consumers also needs to be explored, to go beyond the basic functional needs of clothing and take into account style preferences. Moreover, as clothing is more than just fit and function, the perceptions and expectations of disabled consumers during clothing acquisition must also be understood.

Along with self-concept, disabled consumers' clothing buying decisions can be influenced by a variety of factors, including clothing selection criteria. For example, Burnett (2006) examined the use of the internet by disabled consumers when shopping.

Burnett's findings showed that the greater the disability, the more frequently respondents used the internet for getting information about products or services, shopping online, getting information about health, paying bills, and making travel plans/arrangements. In contrast, Childers and Kaufman-Scarborough (2009) found that disabled consumers are less likely to purchase goods or services online due to lack of accessibility. More research is needed to understand why search and purchase behaviors appear to differ based on the study.

Another difference found between disabled and nondisabled individuals is their perception of advertisements. According to Burnett and Paul (1996), disabled consumers hold different attitudes toward advertising than their nondisabled counterparts. The authors found that disabled individuals have negative attitudes toward advertising, and are less likely to use mass media sources to make a purchase decision. The authors also found that disabled individuals do not respond positively to unresponsive and irrelevant advertising, suggesting the importance of interaction with disabled individuals in the process of developing marketing and advertising plans.

The product information search behavior of disabled consumers is one dimension of their shopping behavior that has been researched. O'Bannon et al. (1988) investigated the information seeking behavior and types of perceived risk of disabled consumers who use a wheelchair. It was found that for this group, price, care, coordination of garments, fiber content, and budgeting the clothing allowance were elements important to seeking information about clothing. The authors also asked participants to rank various information sources they used to make clothing purchase decisions. Information from

family members and mail order catalogs ranked the highest, while information from fashion magazines or television was ranked the lowest. The latter finding may have been due to the fact that fashion magazines and television shows often do not feature disabled individuals. However, this study was conducted two decades ago, and considering Burnett's (2006) study as well as the advent of the internet, the results may be different today.

Evaluation of specific retail environments by disabled consumers is important to understanding their overall shopping experiences. Baker, Holland, and Kaufman-Scarborough (2007) studied the cues that consumers with disabilities use to evaluate a sense of inclusion or feeling of welcome during retail store interactions. They found that disabled individuals would like to be viewed as customers first, yet want salespeople to consider their disability in situations where they might need help. Barriers to apparel acquisition can be another salient issue when shopping in retail stores. MacDonald, Majumder, and Bua-Iam (1994) surveyed disabled individuals to examine their purchasing activities and shopping obstacles. Architectural barriers were found to be the primary obstacle, such as fitting rooms, space between aisles, restrooms, traffic routes through stores and merchandise location. In addition to architectural obstacles, de Klerk and Ampousah (2002) found that a major problem faced by physically disabled women in terms of clothing selection and acquisition was finding fashionable clothing that addresses their design needs.

Although research exists which investigates shopping barriers faced by disabled consumers, there are some limitations. For example, the findings from Burnett (2006)

showed that the more severe the disability, the more frequently respondents used the internet to search for information about products and for shopping online, while Childers and Kaufman-Scarborough (2009) found that disabled consumers are less likely to purchase goods or services online due to lack of accessibility. The difference in results may reflect the fact that neither study clearly classified disabled consumers, thereby emphasizing the need for a better means of classification. Additionally, the social-psychological factors related to clothing shopping were not investigated, and these factors may have an impact on retail outlet selection.

Most previous studies about disabled consumers' shopping constraints have focused on physical or architectural barriers. As MacDonald et al. (1994) found, disabled individuals prefer shopping in department stores where they can easily access a variety of product categories. Baker, Holland, and Kaufman-Scarborough's (2007) study is the only one to investigate the social interactions that disabled consumers have (e.g., with sales individuals) in retail stores. This gap in the research points to a need for more investigation into the shopping needs of disabled consumers, particularly what they look for when purchasing clothing.

Clothing Selection

Clothing selection is often determined by how a consumer perceives his or her self-concept and the desire to express it (Kwon & Parham, 1994). Clothing selection can refer to either selecting clothing to buy (as in a store) or selecting clothing to wear (as from a wardrobe). Clothing selection is linked to the meaning of clothing, as an individual's mood or sociability can have an impact on the clothing one decides to

purchase and wear based on the meanings associated with particular clothing items (Cosbey, 2001).

Clothing selection can be measured by five dimensions of clothing roles, also called “Clothing Choice Dimensions” (Kwon & Parham, 1994). These dimensions include individuality (e.g., clothing that makes a person distinctive), assurance (e.g., clothing that helps a person to have self-confidence), camouflage (e.g., clothing that hides the figure), fashionability (e.g., clothing that is stylish), and comfort (e.g., clothing that is comfortable). Kwon and Parham (1994) found that the motivational reasons for clothing selection can differ based on body image. However, these clothing selection reasons have not been investigated among disabled individuals.

Clothing selection can be a tool to manage a negative self-concept (Cosbey, 2001). Interest in clothing can lift a low mood and even alter one’s self-concept (Dubler & Gurel, 1984), as clothing selection can influence one’s overall outlook. Likewise, the expressive features of clothing can help to enhance a positive feeling when interacting with other individuals (Cosbey, 2001). Yet, disabled consumers are often considered to be the same as nondisabled consumers in the research context. Although the specific clothing design needs of disabled consumers have been explored (Kidd, 2006) along with their experiences in the retail environment (MacDonald et al., 1994), little has been done to examine how self-concept relates to clothing selection. This dissertation therefore seeks to provide a more broad investigation of these dimensions.

Watson, Blanco, and Hunt-Hurst (2010) found that fashionable clothing can help disabled consumers to increase their participation in society and to foster positive

perceptions of individuals with severe intellectual disabilities. They found that fashionable clothing helped those with mental retardation, autism, cerebral palsy, and traumatic brain injury become involved in social settings and receive positive reinforcement from members of society (Watson et al., 2010). The study highlights the important role of clothing in improving disabled individuals' self-esteem. Based on this finding, the therapeutic effect of clothing selection was investigated in this dissertation.

Christman and Branson (1990) studied the influence of dress and physical condition on an employer's impression of female job applicants with physical disabilities. This study revealed that the dress of applicants with disabilities changed employers' perceptions of them. Four significant categories (e.g., personality, power, competence, and professionalism) of employment characteristics were developed and were found to be influenced by the dress of the applicants with disabilities. It was revealed that it is important for disabled individuals to dress appropriately for job interviews. Also, employers scored applicants on crutches or in a wheelchair higher on personality (e.g., cooperative, trustworthy), power (e.g., bold, forceful), competence (expert, experienced), and professionalism (professional, businesslike) compared to those who were not. Because the study focused on how employers view individuals with disabilities, the authors did not examine how disabled individuals assess others' perceptions and opinions of them.

A study by Kaiser (1985) found that disabled individuals are typically not interested in extreme fashion trends and do not want to look different from others. However, it is not clear why this is the case. It is known that various cues can be

combined to create an overall impression, and social desirability or social competence can influence an individual's desire to impress others (Lee, 2011). Again, the relationship between disabled consumers' clothing choices and the impression they seek to make on others has yet to be examined.

Although social participation has been investigated in a few studies (Christman & Branson, 1990; Lamb, 2001), questions remain as to how society views disabled individuals and how disabled individuals establish and perceive their self-concept. Understanding how disabled consumers use clothing to make an impression on others will help in understanding their clothing choices. It is important to note that most studies do not examine the personal characteristics of disabled consumers. Disabled consumers are considered as a group, typically not distinguished by individual characteristics. Disabled consumers' clothing needs as related to their self-concept, as well as their shopping and clothing selection behaviors may be different. Therefore research on disabled consumers' clothing needs and selection behaviors that considers differences in disability is needed. This dissertation addresses this gap in the literature.

Conceptual Framework

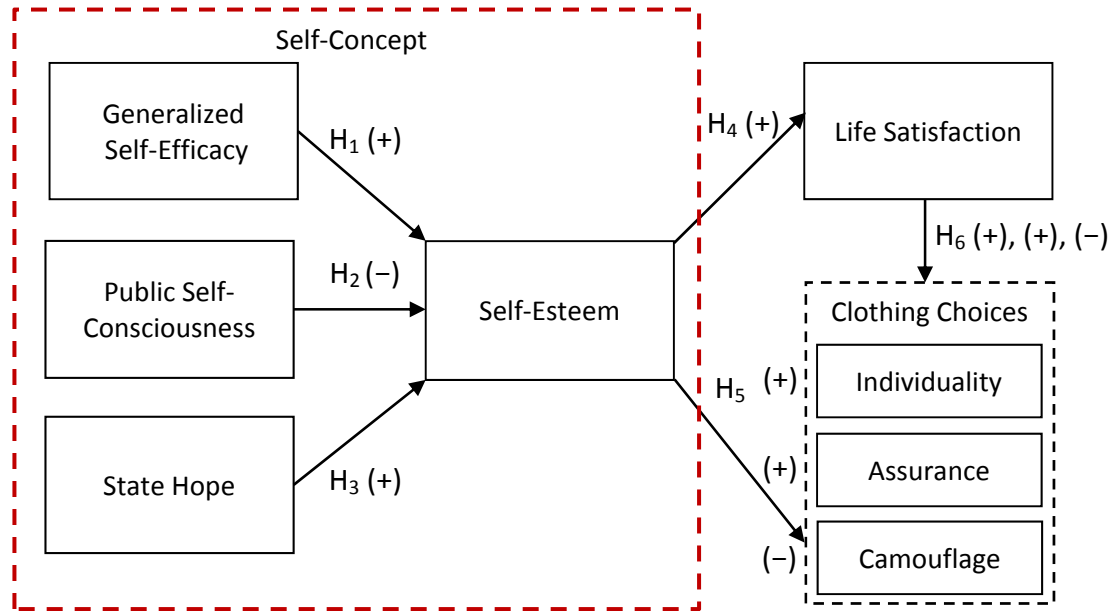
Clothing has been explored and written about in terms of its meanings and symbols (Johnson, Torntore & Eicher, 2003), and these meanings involve the clothing itself plus the psychological, social, and cultural environments of the wearer (Roach & Eicher, 1973). Meaning is important to understanding why individuals select the clothing they do, and this holds true for all people, including those who are disabled. As illustrated by the review of literature, the importance of understanding disabled consumers' clothing

needs with regards to their self-concept as well as how key elements of the self-concept influence clothing selection behaviors cannot be understated and requires further investigation.

Based on the gaps in the extant literature, a framework was developed specifically to examine the relationships between various dimensions of self-concept and clothing selection, as well as between clothing and life satisfaction. Specifically, the framework allows for an examination of the impact that dimensions of disabled consumers' self-concept have on the types of clothing they choose to wear (i.e., clothing that expresses individuality, clothing that camouflages the body, clothing that improves emotional state) and their life satisfaction. According to Kwon and Parham (1994), individuals' clothing choices may be influenced by aspects of their self-concept, such as self-esteem. This dissertation investigates how various aspects of self-concept influence three specific dimensions of clothing selection: individuality, assurance, and camouflage (Kwon & Parham, 1994). The indirect relationship between self-esteem, life satisfaction, and clothing selection factors is also examined.

Figure 8 illustrates the relationships among self-concept (i.e., generalized self-efficacy, public self-consciousness, degree of hope, and self-esteem), clothing choices, and life satisfaction that are investigated.

Figure 8. The Conceptual Framework for the Study



Hypothesis Development

Based on the literature as well as findings from my preliminary study, the conceptual model suggests that disabled individuals' self-concept is multifaceted and influences their life satisfaction and clothing choices with regards to individuality, assurance, and camouflage. As a result, six hypotheses were developed and tested and are described in this section.

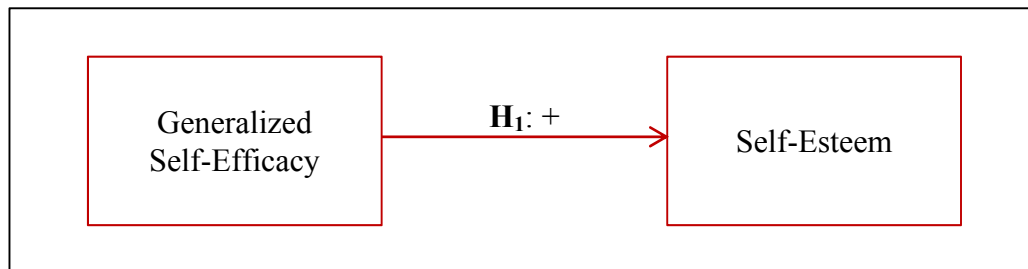
Hypothesis 1: Relationship between disabled consumers' generalized self-efficacy and self-esteem

A combination of self-efficacy theory (Oyedele & Simpson, 2007) and the self-evaluation model developed by Judge et al. (1998) was employed in developing the conceptual framework. In the qualitative preliminary study undertaken for this dissertation, disabled participants talked about how their clothing choices were affected

by perceptions of their ability to perform tasks, or the idea of self-efficacy (Oyedele & Simpson, 2007). Generalized self-efficacy has been shown to be positively related to self-esteem and life satisfaction in the literature for nondisabled consumers (Judge et al., 1998). Moreover, respondents in my preliminary study mentioned that they felt good about themselves and were satisfied with their lives when they were able to perform certain tasks. Hence, it seems likely that self-efficacy would be positively related to self-esteem and, consequently, life satisfaction. Generalized self-efficacy is therefore predicted to be positively related to self-esteem and the following hypothesis was developed (see Figure 9):

H₁: There will be a positive relationship between disabled consumers' generalized self-efficacy and their self-esteem.

Figure 9. The Relationship between Disabled Consumers' Generalized Self-Efficacy and Self-Esteem



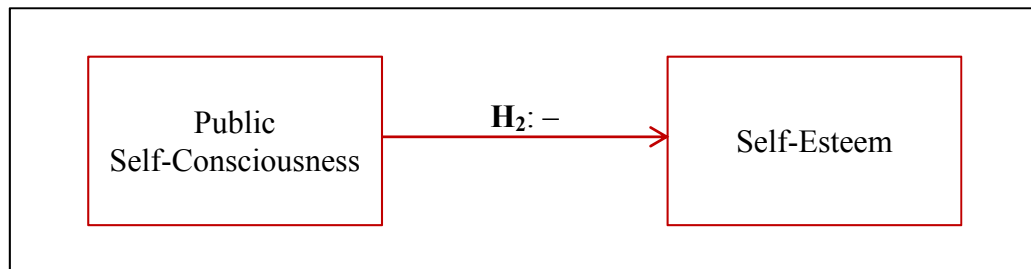
Hypothesis 2: Relationship between disabled consumers' public self-consciousness and self-esteem

Public self-consciousness, another aspect of the self-concept, refers to the degree to which an individual is concerned with his/her appearance and actual behavior in a

social environment (Kwon & Shim, 1999). Public self-consciousness is related to body satisfaction and its influence on clothing use. This idea was also supported by my preliminary findings, in that participants indicated that they care about what other individuals think about their appearance and that they think about others when they select their clothing. Kwon and Shim (1999) revealed that individuals who have higher public self-consciousness have lower self-esteem. This pattern is likely to also be reflected among disabled individuals. Thus, the following hypothesis was developed (see Figure 10):

H₂: There will be a negative relationship between disabled consumers' public self-consciousness and their self-esteem.

Figure 10. The Relationship between Disabled Consumers' Public Self-Consciousness and Self-Esteem



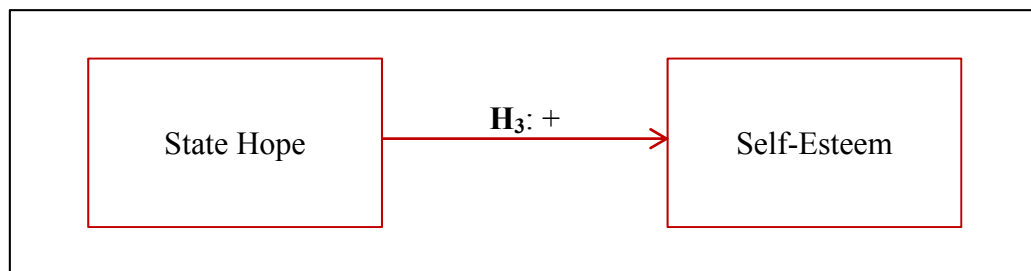
Hypothesis 3: Relationship between disabled consumers' state hope and self-esteem

State hope (Snyder et al., 1996), also referred to as “degree of hope” in this study, is also considered to be a predictor of self-esteem. The conceptualization of hope as a state, as opposed to a trait, is similar to the concept of perceived achievement. Snyder et al. (1996) wrote, “State hope, as measured in a given moment, provides a snapshot of a person’s current goal-directed thinking” (p. 321). State hope is different from

dispositional hope. State hope reflects particular times or events, which may be temporary rather than permanent, while dispositional hope relates to a group of various situations and time. Using the Hope Scale, Snyder et al. (1996) found that degree of hope was positively related to self-esteem. Likewise, the overcoming of obstacles was an important theme that emerged in my preliminary study, and participants related actual life experiences to their perceptions of the self and to clothing meanings. Based on previous research (Snyder et al., 1996) and the results of my preliminary study, it seems likely that disabled consumers' perceptions about their actual achievement or victory over difficulties may influence their self-esteem in a similar fashion. Hence, the following hypothesis was developed (see Figure 11):

H₃: There will be a positive relationship between disabled consumers' state hope and their self-esteem.

Figure 11. The Relationship between Disabled Consumers' State Hope and Self-Esteem



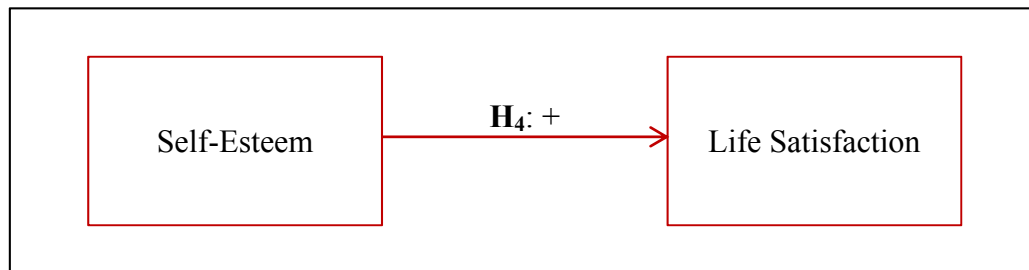
Hypothesis 4: Relationship between disabled consumers' self-esteem and life satisfaction

Life satisfaction, also referred to as subjective well-being, is considered an important measurement for understanding an individual's psychological perceptions about his or her life. According to the literature, emotional responses and life satisfaction

can be predicted by self-esteem (Diener et al., 1985). Thus, it is expected that disabled individuals' life satisfaction will be influenced by self-esteem (Schwartz & Strack, 1999). Therefore, the following hypothesis was developed (see Figure 12):

H₄: There will be a positive relationship between disabled consumers' self-esteem and their life satisfaction.

Figure 12. The Relationship between Disabled Consumers' Self-Esteem and Life Satisfaction



Hypothesis 5: Relationship between disabled consumers' self-esteem and clothing selection

According to Kwon and Parham (1994), individuals' clothing choices may be influenced by aspects of their self-concept, such as body image. Affective evaluations of the self are related to clothing selection practices. Kwon and Parham (1994) measured five dimensions of clothing functions, or clothing choice dimensions. These dimensions include individuality (e.g., clothing that makes a person distinctive), assurance (clothing that helps a person to have self-confidence), camouflage (clothing that hides the figure), fashionability (clothing that is stylish), and comfort (clothing that is comfortable). Three of these clothing choice dimensions, individuality, assurance, and camouflage, were

selected for use in this study because they also emerged in the findings of my preliminary study.

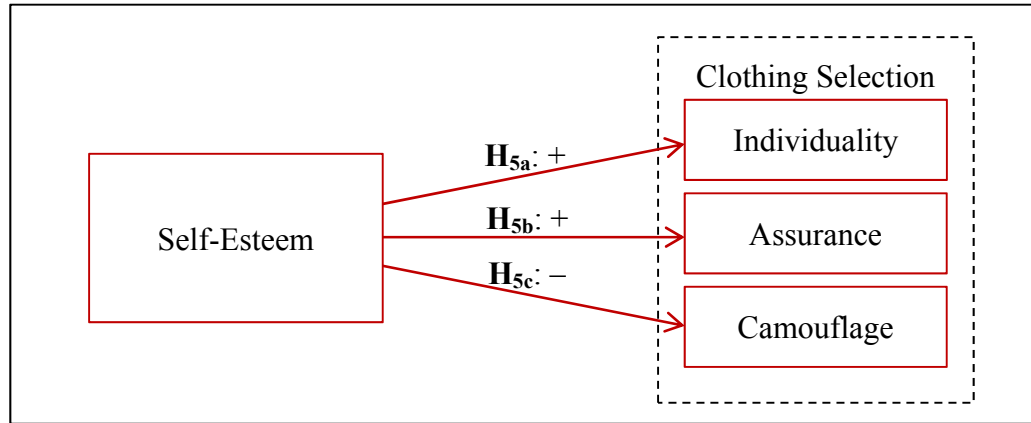
First, the individuality dimension suggests that an individual selects clothing to express a distinctive identity if he/she has positive self-esteem. Second, the assurance dimension suggests that an individual selects clothing to express self-confidence. Thus, it is expected that an individual with high self-esteem will be more likely to select clothing for the assurance dimension. Third, the camouflage dimension suggests that an individual selects clothing to hide his or her self. Therefore, it is expected that an individual with low self-esteem will be more likely to select clothing for its camouflage dimension. Based on this rationale and the literature, the following hypotheses were developed (see Figure 13):

H_{5a}: There will be a positive relationship between disabled consumers' self-esteem and the individuality dimension of clothing selection.

H_{5b}: There will be a positive relationship between disabled consumers' self-esteem and the assurance dimension of clothing selection.

H_{5c}: There will be a negative relationship between disabled consumers' self-esteem and the camouflage dimension of clothing selection.

Figure 13. The Relationship between Disabled Consumers' Self-Esteem and Clothing Selection



Hypothesis 6: The relationship between life satisfaction and clothing selection

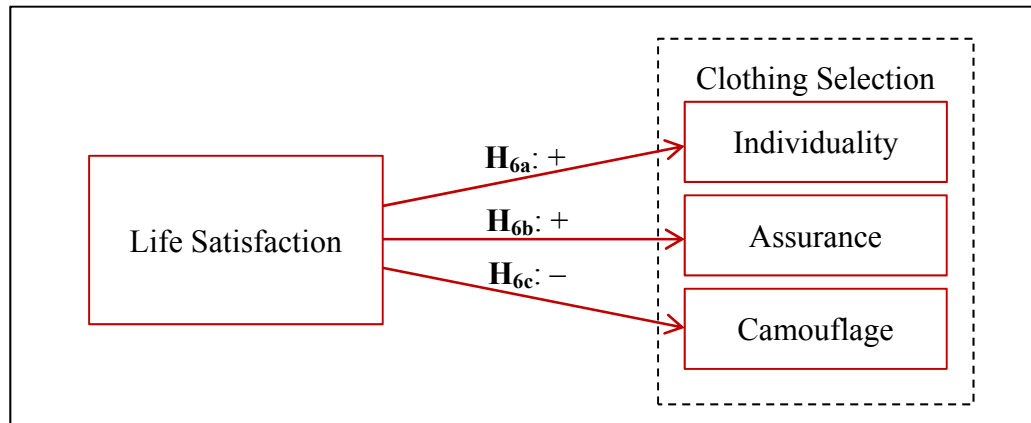
In my preliminary study, respondents used dress to express both positive and negative evaluations of themselves relative to satisfaction. Life satisfaction is often related to aesthetic satisfaction (Sontag & Schlater, 1995). Self-esteem will most likely be related to life satisfaction to the extent that individuals with low life satisfaction may choose clothing to hide the self, while individuals who are satisfied with their lives may want to express their positive feelings, such as happiness or self-confidence, through their clothing. Thus, Hypothesis 6 was developed as follows (see Figure 14):

H_{6a}: There will be a positive relationship between disabled consumers' life satisfaction and the individuality dimension of clothing selection.

H_{6b}: There will be a positive relationship between disabled consumers' life satisfaction and the assurance dimension of clothing selection.

H_{6c}: There will be a negative relationship between disabled consumers' life satisfaction and the camouflage dimension of clothing selection.

Figure 14. The Relationship between Disabled Consumers' Life Satisfaction and Clothing Selection



Summary

This chapter described the theoretical foundation for the dissertation, as well as the constructs that were ultimately tested. Based on a review of pertinent literature, the conceptual model was introduced and six primary hypotheses were developed. The conceptual model will next be empirically tested to investigate the relationships among disabled consumers' self-concept, life satisfaction, and clothing selection. Theoretically, the effects of generalized self-efficacy, public self-consciousness, and state hope on self-esteem, and of self-esteem on life satisfaction and clothing selection will be assessed. Additionally, the effect of self-esteem on life satisfaction and clothing selection, as well as life satisfaction on clothing selection will be examined. The next chapter outlines the research design and methodology used in the dissertation.

CHAPTER III

RESEARCH METHODOLOGY

This chapter presents the research methodology and includes the following sections: (1) Research Purpose and Objectives; (2) Preliminary Study; (3) Instrument Development; (4) Sample and Procedures; (5) Statistical Analysis; and (6) Summary.

Research Purpose and Objectives

As discussed in Chapter I, the main purpose of the study is to understand how disabled individuals' generalized self-efficacy, public self-consciousness, and state hope affect their self-esteem, and, in turn, how their self-concept relates to their clothing selection and life satisfaction. The following objectives guide the study:

1. To explore disabled consumers' clothing selection and meanings of clothing;
2. To examine the relationships among disabled consumers' generalized self-efficacy, public self-consciousness, state hope, and self-esteem;
3. To investigate how disabled consumers' self-concept is related to their clothing selection (i.e., individuality, assurance, and camouflage);
4. To examine how disabled consumers' self-concept is related to their life satisfaction and clothing selection.

What follows is a discussion of the methodology that was employed to achieve these objectives.

Preliminary Study

As discussed in Chapter I, a two-step research design was developed. Step one consisted of a qualitative preliminary study. Because little research exists which examines the concepts important to this dissertation, a preliminary study was undertaken to explore disabled consumers' dress behavior. The following research questions guided the study: *How do disabled individuals select clothing and why? In what ways can clothing be used to express the self and social identity by those with disabilities? What does fashion represent to disabled individuals? What meanings do disabled individuals assign to clothing and why?*

Using an interpretive framework and thematic approach to analysis (Nelson, LaBat, & Williams, 2002), previously unidentified and distinct issues emerged in terms of clothing selection and meaning for disabled consumers. These findings were then used to guide the development of the conceptual framework and research instrument employed for the second step, the dissertation data collection step. Additionally, concepts explored in previous research on self-efficacy (Judge et al., 1998), public self-consciousness (Kwon & Shim, 1999), state hope (Snyder et al., 1996), and self-esteem (Rosenberg, 1965) that are consistent with findings that emerged in the preliminary study were also included.

Instrument Development

For step two (dissertation data collection) a structured questionnaire was developed based on a review of existing literature and the findings from step one. In the qualitative preliminary study, disabled participants talked about how their clothing

choices were affected by perceptions of their ability to perform tasks, or self-efficacy (Oyedele & Simpson, 2007). Therefore, a combination of self-efficacy theory (Oyedele & Simpson, 2007), the self-evaluation model developed by Judge et al. (1998), and the findings from previous literature were employed in developing the conceptual framework and identifying specific variables to be investigated. As a result, the following variables were explored via the survey: generalized self-efficacy, public self-consciousness, state hope, self-esteem, clothing selection (i.e., individuality, assurance, and camouflage), and life satisfaction. Demographic information, including types of disability, was also included on the survey.

Measures

Table 5 summarizes the major constructs that are employed in the current study. Existing measurement scales were selected from the literature for each construct. All of the major constructs (i.e., generalized self-efficacy, public self-consciousness, state hope, self-esteem, clothing selection for individuality, assurance, and camouflage, and life satisfaction) were measured using items on a seven-point Likert-type scale. Participants were asked to indicate their level of agreement with each statement. The scale ranged from “strongly disagree” (1) to “strongly agree” (7) for all of the items (see Appendix A: Survey).

Table 5. Scale Constructs, Conceptualization, Items, and Sources

Constructs	Conceptualization	Scale Items	Literature Source(s)
Generalized Self-Efficacy	A person's beliefs about his/her capabilities to achieve certain goals or to deal with a variety of difficult situations	<ul style="list-style-type: none"> • I can always manage to solve difficult problems if I try hard enough. • If someone opposes me, I can find the means and ways to get what I want. • It is easy for me to stick to my aims and accomplish my goals. • Thanks to my resourcefulness, I know how to handle unforeseen situations. • I can solve most problems if I invest the necessary effort. • I can remain calm when facing difficulties because I can rely on my coping abilities. • When I am confronted with problems, I can usually find several solutions. • If I am in trouble, I can usually think of a solution. • I can usually handle whatever comes my way. 	Oyedele & Simpson (2007)
Public Self-Consciousness	The degree to which an individual is concerned with his/her appearance and actual behavior in a social environment	<ul style="list-style-type: none"> • I am concerned about what other people think of me. • I usually worry about making a good impression. • I am concerned about the way I present myself. • I am self-conscious about the way I look. • I am usually aware of my appearance. 	Buss (1980)

		<ul style="list-style-type: none"> • I am concerned about my style of doing things. • One of the last things I do before leaving my house is to look in the mirror. 	
State Hope	A snapshot of a person's current goal-directed thinking	<ul style="list-style-type: none"> • If I should find myself in a jam, I could think of many ways to get out of it. • At the present time, I am energetically pursuing my goals. • There are lots of ways around any problem that I am facing now. • Right now I see myself as being pretty successful. • I can think of many ways to reach my current goals. • At this time, I am meeting the goals that I have set for myself. 	Snyder (1996)
Self-Esteem	The positivity of a person's self-concept	<ul style="list-style-type: none"> • I feel that I am a person of worth, at least on an equal basis with others. • I feel that I have a number of good qualities. • All in all, I am inclined to feel that I am a failure.* • I am able to do most things as well as most people. • I feel I do not have much to be proud about.* • I take a positive attitude towards myself. • On the whole, I am satisfied with myself. • I wish I could have more respect for myself.* • I feel quite useless at times.* 	Rosenberg (1965)

		<ul style="list-style-type: none"> • I sometimes think that I am no good at all.* 	
Clothing Choices	<p><u>Individuality dimension</u>: clothing choice that makes a person distinctive</p> <p><u>Assurance dimension</u>: clothing choice that helps a person to have self-confidence</p> <p><u>Camouflage dimension</u>: clothing choice that hides the body</p>	<p><u>Individuality</u> When I go out, I tend to select...</p> <ul style="list-style-type: none"> • Clothes that are unusual. • Clothes that make me stand out. • Clothes that make me distinctive. • Clothes that are well fitting. • Clothes that make me look different from others. <p><u>Assurance</u> When I go out, I tend to select...</p> <ul style="list-style-type: none"> • Clothes which boost my morale. • Clothes that make me feel better. • Clothes which make me feel more sure of myself. • Clothes that give me self-confidence. • Clothes that make my body look good. • Clothes which are my favorite. <p><u>Camouflage</u> When I go out, I tend to select...</p> <ul style="list-style-type: none"> • Clothes that hide the parts of my body that I do not like. • Loosely fitting clothes. • Clothing that draws attention to me.* • Clothes that are dark colored. • Clothes that are bright colored to lift my mood.* • Clothing according to the mood I am in that day.* 	Kwon & Parham (1994)

Life Satisfaction	An overall assessment of feelings and attitudes about one's life	<ul style="list-style-type: none"> • In most ways, my life is close to my ideal. • The conditions of my life are excellent. • I am completely satisfied with my life. • So far I have gotten the most important things I want in life. • If I could relive my life, I would change nothing. 	Diener et al. (1985)
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Note: Asterisk (*) means that the item is reversed.

Generalized Self-Efficacy

Generalized self-efficacy was measured with nine items adopted from Oyedele and Simpson (2006). This scale was used because it was found to have a satisfactory reported level of reliability (Cronbach's $\alpha = 0.86$) in the literature (Oyedele & Simpson, 2006). Generalized self-efficacy is related to how an individual's subjective perceived abilities affect his or her self-esteem and consequently his or her clothing selection and self-confidence. Disabled consumers' subjective self-efficacy relates to their own perceptions of their ability to achieve certain goals. Example statements are, "I can always manage to solve difficult problems if I try hard enough," and "If someone opposes me, I can find the means and ways to get what I want."

Generalized self-efficacy has been shown to be positively related to self-esteem and life satisfaction in the literature (Judge et al., 1998) but it has only been tested with nondisabled consumers. Because the respondents in the preliminary study mentioned that they felt good about themselves and were satisfied with their lives when they were able to perform certain tasks, it seems likely that self-efficacy would also be positively related to

self-esteem and life satisfaction for disabled consumers. Therefore, in the conceptual model, generalized self-efficacy was predicted to be positively related to self-esteem and life satisfaction.

Public Self-Consciousness

Public self-consciousness is related to appearance satisfaction, which is often related to life satisfaction (Sontag & Schlater, 1995), and its influence on clothing use. Kwon and Shim (1999) revealed that individuals who have higher public self-consciousness have lower self-esteem. This idea was also supported by the qualitative findings of the preliminary study in that participants indicated that they care about what other individuals think about their appearance and they think about others when selecting clothing. The participants who were most concerned about others' opinions of them seemed to have a lower evaluation of themselves. In this way, the disabled consumers were similar to the nondisabled consumers.

Public self-consciousness refers to the degree to which an individual is concerned with his/her appearance and actual behavior in a social environment (Kwon & Shim, 1999). The public self-consciousness scale was adopted from Buss (1980). This scale includes seven items and was found to have a satisfactory reported level of reliability (Cronbach's $\alpha = 0.84$) in the literature (Buss, 1980). Although the scale was developed with nondisabled consumers, the items seem appropriate for use with a sample of disabled consumers. Example statements are, "I am concerned about what other people think of me," and "I usually worry about making a good impression."

State Hope

State hope (Snyder et al., 1996), also referred to as degree of hope in this study, is considered to be a predictor of self-esteem. State hope is different from dispositional hope, which is what the Hope Scale had previously measured. State hope reflects particular times or events, which may be temporary but not permanent, while dispositional hope relates to various situations and times. The State Hope Scale of six items was adopted from Snyder et al. (1996) and was found to have a satisfactory reported level of reliability (Cronbach's $\alpha = 0.80$) in the literature (Snyder et al., 1996). Example statements are, "If I should find myself in a jam, I could think of many ways to get out of it," and "At the present time, I am energetically pursuing my goals."

Using the State Hope Scale, which was developed to measure perceptions of potential achievement, Snyder et al. (1996) found that degree of hope was positively related to self-esteem. In the preliminary qualitative study, overcoming obstacles was an important theme that emerged. Participants related actual life experiences to their perceptions of the self and to clothing meanings. Based on previous research (Snyder et al., 1996) and the results of the preliminary study, it seems likely that disabled consumers' perceptions about their achievements or victories over difficulties may influence their self-esteem in a similar fashion. Although the State Hope Scale was originally developed for use with nondisabled adults, the results from the pretest (see below) suggest that the items from the State Hope Scale are understood and applicable to disabled consumers.

Self-Esteem

According to Weisbuch et al. (2010), self-esteem can be increased or diminished by social interaction as well as personal perceptions of social feedback, such as compliments or criticism. Self-esteem is often used as a measurement to gauge one's apparent value to oneself and others (Weisbuch et al., 2010). Body image or body related concerns can also influence one's self-esteem (Hoffmeister et al., 2010). Thus, self-esteem should be expressed in clothing selection. Because clothing is considered as a second skin to express aspects of the self and the body, individuals with poor body image and, consequently, low self-esteem likely to attempt to use clothing to hide perceived imperfections. Alternatively, those individuals with positive perceptions of their body and high self-esteem may wear clothing that is more revealing of the shape and contours of their physical form.

The scale used to measure self-esteem was adopted from Rosenberg (1965) because it is the most often used self-esteem scale (Daters, 1990; Tiggermann & Lacey, 2009; Yurchisin & Johnson, 2004) and was found to have a satisfactory reported level of reliability (Cronbach's $\alpha = 0.88$) in the literature (Rosenberg, 1965). Including ten items, the scale is a measure of one's perceived feelings and attitudes about the self. Example statements are, "I feel that I am a person of worth, at least on an equal basis with others," and "I feel that I have a number of good qualities." An objective of this study is to examine how self-efficacy and public self-consciousness influence the positivity of one's self-image. Thus, this scale can assess the degree of positivity associated with one's self-image, or self-esteem.

Clothing Selection

According to Kwon and Parham (1994), individuals' clothing choices may be influenced by aspects of their self-concept, such as body image. Affective evaluations of the self are related to clothing selection practices. Kwon and Parham (1994) measured five clothing choice dimensions. These dimensions include individuality (i.e., clothing that makes a person distinctive), assurance (i.e., clothing that helps a person to have self-confidence), camouflage (i.e., clothing that hides the figure), fashionability (i.e., clothing that is stylish), and comfort (i.e., clothing that is comfortable). Three of these clothing dimensions – individuality, assurance, and camouflage – were selected for use in this study because they emerged as important themes in the preliminary study findings.

The scales that were used to measure these three clothing dimensions are adopted from Kwon and Parham (1994). The individuality dimension of clothing choice was measured with six items. Example statements are, “When I go out, I tend to select clothes that are unusual,” and “When I go out, I tend to select clothes that make me distinctive.” The assurance dimension of clothing choice was measured by six items. Example statements are, “When I go out, I tend to select clothes that make me feel better,” and “When I go out, I tend to select clothes which make me feel more sure of myself.” The camouflage dimension of clothing choice was measured with six items. Example statements are, “When I go out, I tend to select clothes that camouflage my limitations or difficulties,” and “When I go out, I tend to select clothes that are dark colored.” Reliabilities of the clothing selection scale items were not measured in the previous study. Thus, reliability of the individuality, assurance, and camouflage clothing choice

dimension scale items were measured in this dissertation. Even though Kwon and Parham's (1994) participants were nondisabled adults, the scale items should be applicable to disabled adults, given the findings from the preliminary qualitative study, and, as will be discussed shortly, the results from the pretest.

Life Satisfaction

Life satisfaction was measured with the ten item scale used by Diener et al. (1985) as it was found to have a satisfactory reported level of reliability (Cronbach's $\alpha = 0.87$) in the literature (Diener, et al., 2010). According to the literature, emotional responses and life satisfaction can be predicted by self-esteem (Diener et al., 1985). Thus, it was expected that disabled individuals' life satisfaction will be influenced by self-esteem (Schwartz & Strack, 1999). In the preliminary study, respondents used dress to express both positive and negative evaluations of themselves relative to life satisfaction. Self-esteem is most likely related to life satisfaction to the extent that individuals with low life satisfaction may choose clothing to hide the self, while individuals who are satisfied with their lives may want to express their positive feelings, such as happiness or self-confidence, through their clothing selection. Some sample items include: "In most ways, my life is close to my ideal," and "The conditions of my life are excellent."

Demographic Information

Demographic information was requested of respondents, including (1) gender, (2) age, (3) ethnicity, (4) education level, (5) household income, and (6) type of disability. All items were assessed through categorical scales, except age, which was assessed through a ratio scale. Specifically, type of disability was asked using items from Grewal

et al. (2002). First, participants were asked to write in the nature of the disability and impairment. Second, they were asked to mark all applicable disabilities on the list and to describe their disabilities via an open-ended question. Third, they were asked to indicate the severity and duration of their disability. These items include “What is the nature of your disability/ impairment?” and “How long have you had this disability/impairment/ illness?”

Pretesting the Instrument

To test the instrument and select the appropriate items for the study, a convenience sample of students with disabilities was asked to complete the survey. Once IRB approval was received, the Office of Disability Services at UNCG was contacted. Students registered with the office were asked to complete the survey as part of the advising process. A total of nine completed surveys were collected. Any items with low factor loadings or reliability were noted and issues with wording were addressed. The results showed satisfactory factor loadings and reliability for each factor.

Generalized self-efficacy consisted of two factors with eight items. Factor 1 consisted of four items. Reliability of the scale for Factor 1 was Cronbach’s $\alpha = .91$. This factor explained 43.71% of the total variance. Factor 2 consisted of four items and reliability was Cronbach’s $\alpha = .83$. This factor explained 39.54% of the total variance (see Table 6).

Table 6. Generalized Self-Efficacy: A Priori Exploratory Factor Analysis and Reliability

Items	Factor Loading	Reliability	Variance Extracted
Generalized Self-Efficacy			
Factor 1 (Item 3, 4, 7, 8)		.91	43.71%
1. It is easy for me to stick to my aims and accomplish my goals.	.80		
2. Thanks to my resourcefulness, I know how to handle unforeseen situations.	.90		
3. When I am confronted with problems, I can usually find several solutions.	.94		
4. If I am in trouble, I can usually think of a solution.	.87		
Factor 2 (Item 1, 2, 5, 9)		.83	39.54%
1. I can always manage to solve difficult problems if I try hard enough.	.83		
2. If someone opposes me, I can find the means and ways to get what I want.	.77		
3. I can solve most problems if I invest the necessary effort.	.95		
4. I can usually handle whatever comes my way.	.73		

Note: Items are measured on a seven-point Likert scale from 1=strongly disagree to 7=strongly agree.

Public self-consciousness consisted of two factors with six items. Factor 1 consisted of five items. Reliability of the scale for Factor 1 was Cronbach's $\alpha = .88$, and explained 55.47% of the total variance. Factor 2 consisted of one item. Reliability of the scale could not be tested because it only contains one item. This factor explained 19.86% of the total variance (see Table 7).

Table 7. Public Self-Consciousness: A Priori Exploratory Factor Analysis and Reliability

Items	Factor Loading	Reliability	Variance Extracted
Public Self-Consciousness			
Factor 1 (Item 1, 2, 3, 4, 7)		.88	55.47%
1. I am concerned about what other people think of me.	.94		
2. I usually worry about making a good impression.	.84		
3. I am concerned about the way I present myself.	.90		
4. I am self-conscious about the way I look.	.66		
5. One of the last things I do before leaving my house is to look in the mirror.	.79		
Factor 2 (Item 5)		--	19.86%
1. I am usually aware of my appearance.	.89		

Note: Items are measured on a seven-point Likert scale from 1=strongly disagree to 7=strongly agree.

State hope consisted of two factors with six items. Factor 1 consisted of four items. Reliability of the scale for Factor 1 was Cronbach's $\alpha = .84$, and explained 43.23% of the total variance. Factor 2 consisted of two items. Reliability of the scale for Factor 2 was Cronbach's $\alpha = .91$, and explained 35.52% of the total variance (see Table 8).

Table 8. State Hope: A Priori Exploratory Factor Analysis and Reliability

Items	Factor Loading	Reliability	Variance Extracted
State Hope			
Factor 1 (Item 1, 2, 3, 5)		.84	43.23%
• If I should find myself in a jam, I could think of many ways to get out of it.	.91		
• At the present time, I am energetically pursuing my goals.	.60		
• There are lots of ways around any problem that I am facing now.*	.84		
• I can think of many ways to reach my current goals.	.79		
Factor 2 (Item 4, 6)		.91	35.52%
1. Right now I see myself as being pretty successful.	.92		
2. At this time, I am meeting the goals that I have set for myself.	.92		

Note: Items are measured on a seven-point Likert scale from 1=strongly disagree to 7=strongly agree. * = reverse-coded item.

Self-esteem consisted of three factors with nine items. Factor 1 consisted of four items. Reliability of the scale for Factor 1 was Cronbach's $\alpha = .88$, and explained 33.48% of the total variance. Factor 2 consisted of four items. Reliability of the scale for Factor 2 was Cronbach's $\alpha = .77$, and explained 32.91% of the total variance. Factor 3 consisted of one item. Reliability of the scale for Factor 3 could not be tested because it only contains one item. Factor 3 explained 18.59% of the total variance (see Table 9).

Table 9. Self-Esteem: A Priori Exploratory Factor Analysis and Reliability

Items	Factor Loading	Reliability	Variance Extracted
Self-Esteem			
Factor 1 (Item 2, 4, 5, 7)		.88	33.48%
1. I feel that I have a number of good qualities.	.97		
2. I am able to do most things as well as most people.	.87		
3. I feel I do not have much to be proud about.*	.86		
4. On the whole, I am satisfied with myself.	.82		
Factor 2 (Item 1, 3, 8, 10)		.77	32.91%
1. I feel that I am a person of worth, at least on an equal basis with others.	.72		
2. All in all, I am inclined to feel that I am a failure.*	.89		
3. I wish I could have more respect for myself.*	.66		
4. I sometimes think that I am no good at all.*	.96		
Factor 3 (Item 6)		--	18.59%
1. I take a positive attitude towards myself.	.98		

Note: Items are measured on a seven-point Likert scale from 1=strongly disagree to 7=strongly agree. * = reverse-coded item.

The dimensions of clothing selection consisted of four factors with ten items.

Factor 1 consisted of three items. Reliability of the scale for Factor 1 was Cronbach's $\alpha = .93$, and explained 31.07% of the total variance. Factor 2 consisted of two items.

Reliability of the scale for Factor 2 was Cronbach's $\alpha = .78$, and explained 24.53% of the total variance. Factor 3 consisted of three items. Reliability of the scale for Factor 3 was Cronbach's $\alpha = .76$, and explained 21.46% of the total variance. Factor 4 consisted of two

items. Reliability of the scale for Factor 4 was Cronbach's $\alpha = .73$, and explained 13.62% of the total variance (see Table 10).

Table 10. Clothing Selection: A Priori Exploratory Factor Analysis and Reliability

Items	Factor Loading	Reliability	Variance Extracted
Clothing Selection			
Factor 1 (Item 6, 8, 9)		.93	31.07%
1. Clothes which boost my morale	.94		
2. Clothes which make me feel more sure of myself	.81		
3. Clothes that give me self-confidence	.94		
Factor 2 (Item 2, 14)			
1. Clothes that make me stand out	.83	.78	24.53%
2. Clothing that draws attention to me	.98		
Factor 3 (Item 5, 7, 16)			
1. Clothes that make me look different from others	.93	.76	21.46%
2. Clothes that make me feel better	.72		
3. Clothes that are bright colored to uplift my mood*	.89		
Factor 4 (Item 15, 17)			
1. Clothes that are dark colored	.80	.73	13.62%
2. Clothing according to the mood I am in that day*	.76		

Note: Items are measured on a seven-point Likert scale from 1=strongly disagree to 7=strongly agree. * = reverse-coded item.

Life Satisfaction consisted of one factor with five items. Reliability (Cronbach's Alpha) of the scale was .80, and explained 67.34% of the total variance (see Table 11).

Table 11. Life Satisfaction: A Priori Exploratory Factor Analysis and Reliability

Items	Factor Loading	Reliability	Variance Extracted
Life Satisfaction		.80	67.34%
1. In most ways, my life is close to my ideal.	.95		
2. The conditions of my life are excellent.	.90		
3. I am completely satisfied with my life.	.81		
4. So far I have gotten the most important things I want in life.	.70		
5. If I could relive my life, I would change nothing.	.72		

Note: Items are measured on a seven-point Likert scale from 1=strongly disagree to 7=strongly agree.

Last, reliability for each factor based on theory and existing literature was also tested. Satisfactory reliability was found for each factor (see Table 12). Based on the acceptable reliability statistics acquired from the pre-test, all items were retained on the final questionnaire. It appears to be the case that the scale items used in previous research were applicable to the disabled adult students who completed the pre-test.

Table 12. Reliability for each Theory-Based Factor

	Number of Items	Reliability
Generalized Self-Efficacy	9	.90
Public Self-Consciousness	7	.87
State Hope	6	.82
Self-Esteem	10	.76
Clothing Selection – Individuality	5	.78
Clothing Selection – Assurance	6	.74
Clothing Selection – Camouflage	2	.73
Life Satisfaction	5	.84

The Pearson correlation was tested to see the degree of association among factors (see Table 13). In Table 13, GSF refers to generalized self-efficacy. PSC represents public self-consciousness. SH refers to state hope and SE refers to self-esteem. LS represents life satisfaction. Regarding the clothing selection dimensions, ID refers to the individuality dimension of clothing selection. AD refers to the assurance dimension of clothing selection. CD refers to the camouflage dimension of clothing selection. The result shows association among factors to some extent. The correlation coefficients show strong and significant association among generalized self-efficacy, state hope, and self-esteem. Also, self-esteem has a significant correlation with life satisfaction. High correlations between factors representing two different constructs may indicate that the items used for these scales are not assessing two unique constructs and, ultimately, are capturing one concept. In other words, the validity of the measures may be called into question. However, given the exploratory nature of the pre-test, all items were retained for the final questionnaire. The potential areas for particular concern were noted for the analysis of the final dataset.

Table 13. Correlation among Theory-Based Factors (N=318)

	1	2	3	4	5	6	7	8
1. GSF	.90							
2. PSC	.00	.87						
3. SH	.68*	-.36	.82					
4. SE	.82*	.27	.87**	.76				
5. LS	.49	-.62	.86**	.46	.78			
6. ID	.38	.18	.29	.64	.06	.74		
7. AD	.27	.09	.35	.65	.01	.55	.73	
8. CD	-.11	.05	-.16	.14	-.11	.58	.86**	.84

Note: GSF = Generalized Self-Efficacy; PSC = Public Self-Consciousness; SH = State Hope; SE = Self-Esteem; LS = Life Satisfaction; ID = Individuality Dimension of Clothing Choice; AD = Assurance Dimension of Clothing Choice; CD = Camouflage Dimension of Clothing Choice. The diagonal values indicate reliabilities of each construct (Cronbach's α).

* $p < .05$, ** $p < .01$ (2 tailed).

Sample and Procedures

This study employed a quantitative research design using the survey method. The respondents for this study were 350 adult disabled consumers in a variety of settings. There were several types of locations used for data collection to allow for greater sample generalization. First, students registered with disability offices at five Southeastern universities (i.e., the University of North Carolina at Greensboro, North Carolina A&T, the University of North Carolina at Chapel Hill, the University of South Carolina, and the University of Tennessee) were emailed an online version of the survey. Second, a paper version of the survey was completed by respondents at the Industries of the Blind, the Goodwill Rehabilitation Training Center, and the Handicapable Network in Greensboro.

Third, paper surveys were distributed at Bell House, a sanctuary house in Greensboro for individuals living with Cerebral Palsy. Fourth, individuals who are members of the American Association of People with Disabilities, the Paralyzed Veterans Association, the World Institute on Disability, the National Multiple Sclerosis Society, and the Wheelchair Basketball Association, were emailed the online version of the survey.

There was no range restriction of respondents based on type of disability. Multiple formats of the questionnaire were available to allow completion of the survey by individuals with a variety of disabilities (e.g., visual impairment, physical impairment). Severity (i.e., cognitive or physical, temporary or permanent) and duration (i.e., from birth or after birth) of disability was asked in the questionnaire. Individuals participating in community programs were asked by the researcher to complete the questionnaire while visiting the program office. University students registered with the disability service center at their respective campus were recruited via e-mail to complete the survey online. To respect the privacy of the students, a link to the online survey was sent to the students' email addresses by the staff members in the disability service centers. Those students who wanted to take the survey could then do so anonymously online. As will be discussed in Chapter IV, the equivalence between the online survey and in person survey was measured by construct and measurement equivalence tests (i.e., factor loadings and measurement models). Respondents were both males and females of a variety of ages, but all over the age of 18 (see Appendix B: Consent Form).

Statistical Analysis

To analyze the data, PASW Statistics 18.0 and structural equation modeling using LISREL 8.8 (Joreskog & Sorbom, 2006) was employed. The scientific method utilized for this research study includes a quantitative analysis of closed-ended survey questions. The questionnaire items required a quantitative analysis of rating scales. Data analyses consisted of descriptive statistics, including frequency distributions, percentages, and mean scores. Exploratory factor analyses with Varimax rotation was used for the multi-item scales to refine the measures included in this study. Factors with Eigen values of 1.0 or greater were retained. Items with a factor loading of at least 0.60 on one factor and less than 0.40 on other factors were retained to ensure that only reliable items were included (Nunnally, 1978). Items that cross-loaded on more than one factor were removed from further analyses. Reliability of the factors was at least 0.60.

Structural equation modeling (SEM) was conducted to test the hypotheses as well as to examine the fit of the measurement model (e.g., the result of confirmatory factor analysis) and the structural model (e.g., the result of structural analysis) (Jorskog & Sorbom, 1993). First, confirmatory analysis was conducted to determine measurement model fit, composite reliability, and discriminant validity. Second, the model fit of the conceptual framework of this study was tested by SEM. This showed the statistical results of the relationships among the variables. The conceptual framework of this study was developed based on several constructs. The benefit of SEM is that all of the relationships in the model could be examined simultaneously. Thus, using SEM revealed

how well the model fit the data and how well the data support the model established by the constructs.

Summary

This chapter described the research methodology used to address the objectives of this study and to test the hypotheses. Instrument development, sample and procedure, and approaches to statistical analysis were also discussed. In the next chapter, results of the statistical analysis are presented.

CHAPTER IV

DATA ANALYSIS

This chapter includes the following sections: (1) Description of Sample and Responses; (2) Measurement Model Analysis; (3) Structural Model Analysis and Hypotheses Testing; and (4) Summary.

Description of Sample and Responses

Data were collected through dissemination of the survey during February and March of 2012. A total of three hundred fifty participants completed the survey. Of the total, 32 responses were incomplete, resulting in 318 usable responses and yielding a response rate of 90.9%.

Surveys were distributed both in electronic and hard copy format at several locations. First, students registered with disability offices at five Southeastern universities (i.e., the University of North Carolina at Greensboro, North Carolina A&T, the University of North Carolina at Chapel Hill, the University of South Carolina, and the University of Tennessee) were emailed an online version of the survey. Second, a paper version of the survey was completed by respondents at the Industries of the Blind, the Goodwill Rehabilitation Training Center, and the Handicapable Network in Greensboro. Third, paper surveys were distributed at Bell House, a sanctuary house in Greensboro for individuals living with Cerebral Palsy. Fourth, individuals who are members of the American Association of People with Disabilities, the Paralyzed Veterans Association,

the World Institute on Disability, the National Multiple Sclerosis Society, and the Wheelchair Basketball Association, were emailed the online version of the survey. The majority of respondents were from Industries of the Blind ($n = 61$), followed by the University of North Carolina at Greensboro ($n = 52$), the Goodwill Rehabilitation Training Center ($n = 45$), the American Association of People with Disabilities ($n = 36$), and the University of North Carolina at Chapel Hill ($n = 27$).

Demographic characteristics of the respondents are summarized in Table 14. The final sample ($N = 318$) was composed of 113 females (35.5%) and 199 males (62.6%). The mean age of respondents was 37.7 years, with ages ranging from 18 to 81. The majority of participants were Caucasian/White ($n = 179$, 56.3%), followed by African-American ($n = 88$, 27.7%), Hispanic/Latino ($n = 9$, 2.8%) and Asian-American ($n = 6$, 2.5%), respectively. With respect to education, the majority of participants had finished high school ($n = 138$, 43.4%), followed by those having completed college ($n = 69$, 21.7%). More than 50% of participants were employed by others. Household income indicated by the majority of respondents was \$19,999 or less ($n = 124$, 39.0%), followed by \$20,000 to \$34,999 ($n = 49$, 15.4%) and \$35,000 to \$49,999 ($n = 34$, 10.7%).

Table 14. Demographic Characteristics of the Respondents (N=318)

Characteristics		Frequency/Percentage	
Number of Respondents		350	
Valid (usable) Sample Size		318	
Gender		Total	Percentage (%)
	Female	113	35.5
	Male	199	63.8
	Missing	6	1.9
Age (Mean)		37.7	
Ethnicity			
	Caucasian/White	179	56.3
	African-American	88	27.7
	Hispanic/Latino	9	2.8
	Asian-American	8	2.5
	Asian or Pacific Islander	6	1.9
	American Indian	5	1.6
	Other	17	5.3
	Missing	6	1.9
Education			
	Finished Primary School	1	0.3
	Finished Middle School	17	5.3
	Finished High School	138	43.4
	Completed College	69	21.7
	Other	89	28.0
	Missing	4	1.3
Household Income (2011-2012)			
	\$19,999 or less	124	39.0
	\$20,000-34,999	49	15.4
	\$35,000-49,999	34	10.7
	\$50,000-64,999	20	6.3
	\$65,000-79,999	18	5.7
	\$80,000-99,999	13	4.1
	\$100,000 or above	30	9.4
	N/A	6	1.9
	Missing	24	7.5
Current Employment			
	Employed by others	165	51.9
	Self-employed	11	3.5
	Not employed	83	26.1
	Retired	16	5.0
	N/A	39	12.3
	Missing	4	1.3

Type of Disability

Participants indicated that they possessed a range of different types of disabilities. Descriptive statistics of participants' disability types are presented in Table 15. The majority of participants have a mobility impairment (n = 101, 31.8%), followed by those with a visual impairment (n = 90, 28.3%), those with a learning disability (n = 81, 25.5%), those with a chronic medical condition (n = 73, 23.0%), those with a mental health problem (n = 68, 21.4%), a long term illness (n = 34, 10.7%), sensory impairment (n = 29, 9.2%), and finally, a hearing impairment (n = 27, 8.5%), respectively. Because some participants indicated that they have more than one disability, the total frequency exceeds N = 318 and percentage exceeds 100%.

Table 15. Frequency and Percentage of Types of Disability among Respondents (N=318)

Type of Disability	Frequency	
	Total	Percentage (%)
Mobility Impairment	101	31.8
Sensory Impairment	29	9.2
Visual Impairment	90	28.3
Hearing Impairment	27	8.5
Learning Disability	81	25.5
Mental Health Problem	68	21.4
Long Term Illness	34	10.7
Chronic Medical Condition	73	23.0

Note: Several participants had more than one disability.

Duration of disability/impairment was also indicated by the respondents (see Table 16). The majority of participants have had their disabilities all their lives (n = 136, 42.8%) or for over 10 years (n = 80, 25.2%). Less than 25% of the participants indicated that they have had their disabilities for no more than 10 years (n = 75, 23.7%).

Table 16. Duration of Respondents' Disability/Impairment (N=318)

Duration of Disability	Frequency	
	Total	Percentage (%)
Less than a year	7	2.2
1-5 years	33	10.4
6-10 years	35	11.0
Over 10 years	80	25.1
All of my life	136	42.8
Missing	27	8.5

Items pertaining to the severity of disability were also completed by the participants. Severity of a mobility impairment was first measured by the frequency of wheelchair use. More than half of the participants with a mobility impairment used a wheelchair some or most of the time (n = 59, 58.4%). Severity of a hearing impairment was measured by whether participants had either no hearing or partial hearing. Fifteen out of 27 individuals with a hearing impairment had partial hearing (n = 15, 53.6%). Severity of a visual impairment was measured by whether individuals have no sight or partial sight. Almost seventy-eight percent of participants with a visual impairment indicated they have partial sight (n = 70, 77.8%) (see Table 17).

Table 17. Severity of Respondents' Mobility, Hearing, and Visual Impairment

Severity of Disability	Frequency	
	Total	Percentage (%)
<u>Frequency of Wheelchair Use</u>		
Some/most of the time	59	58.4
Never/rarely	42	41.6
<u>Hearing Ability</u>		
No hearing	12	44.4
Partial hearing	15	53.6
<u>Visual Ability</u>		
No sight	20	22.2
Partial sight	70	77.8

Exploratory Factor Analysis for Clothing Selection Dimensions

As discussed earlier, the reliability of the scale developed by Kwon and Parham (1994) was unknown. Thus, an exploratory factor analysis (EFA) was conducted to test the factor dimensions. Reliability was measured after the factor dimensions were confirmed. The original factor model from Kwon and Parham (1994) featured three dimensions of clothing choice: *assurance*, *individuality*, and *camouflage*. However, the EFA results in the present study revealed just two clothing choice dimensions: assurance and individuality, rather than three (see Table 18). In Kwon and Parham's (1994) study, the assurance dimension of clothing choice was explained with six items, the individuality dimension with five items, and the camouflage dimension with six items. The EFA for the current study resulted in one of the items of the assurance dimension being dropped due to low factor loading (< 0.40). Although four out of five items for the

camouflage dimension were retained, this dimension was eliminated because of low reliability in general (Cronbach's $\alpha < 0.70$) (Nunnally, 1978). Based on EFA results, one of the items from the individuality dimension of clothing choice loaded on to the assurance dimension of clothing choice (i.e., When I go out, I tend to select clothes that are well fitting), and one of the items from the camouflage dimension of clothing choice loaded on to the individuality dimension of clothing choice (i.e., When I go out, I tend to select clothes that draw attention to me*). Thus, a total of six items loaded on to the assurance dimension of clothing choice and five items on to the individuality dimension of clothing choice.

Table 18. Results of the Exploratory Factor Analysis of Clothing Selection Dimensions

Items	Factor Loading	Reliability (Cronbach's α)	Variance Extracted
After the Exploratory Factor Analysis Clothing Selection Dimensions (Result: 2 factors found instead of 3)			
<u>Assurance Dimension</u>		.88	35.08%
Assurance 1	.75		
Assurance 2	.85		
Assurance 3	.91		
Assurance 4	.91		
Assurance 5	.75		
Individuality 4	.46		
<u>Individuality Dimension</u>		.85	28.54%
Individuality 1	.76		
Individuality 2	.81		
Individuality 3	.78		
Individuality 5	.75		
Camouflage 3*	.75		

Note: Asterisk (*) means that the item was reverse-coded and Cronbach's α refers to the reliability of each construct (> 0.70).

Measurement Model Analysis

Measurement model analysis was based on seven latent constructs: (1) Generalized Self-Efficacy; (2) Public Self Consciousness; (3) State Hope; (4) Self-Esteem; (5) Life Satisfaction; (6) Clothing Selection Dimension 1 – Assurance Function; and (7) Clothing Selection Dimension 2 – Individuality Function. The measurement model includes all of the original factors from the hypothesized model (i.e., four self-concept factors, life satisfaction factor, and two dimensions of clothing selection factors), with the exception of the camouflage dimension of clothing selection that, as previously mentioned, was dropped due to low reliability (as a result of the EFA). For the purpose of measurement purification and item refinement, item inter-correlations were examined for values indicating very high or low associations. Confirmatory factor analysis (CFA) was conducted to explore the pattern of relationships among a number of variables, and was followed by Structural Equation Modeling (SEM) via LISREL 8.8 to test the main effects.

Correlation Test

Pearson correlation coefficients were used to determine the degree of association among factors. In Table 19, GSF refers to generalized self-efficacy. PSC represents public self-consciousness. SH refers to state hope, and SE refers to self-esteem. LS represents life satisfaction. With respect to clothing selection dimensions, ID refers to the individuality dimension of clothing selection and AD refers to the assurance dimension. Results show association among factors to some extent. Correlation coefficients show a strong and significant association between generalized self-efficacy and state hope (0.74). High correlations (e.g., closer to 1.00) between factors representing two different

constructs may indicate that the items used for these scales are not assessing two unique constructs and, ultimately, are capturing one concept. However, given the exploratory nature of the study and the low correlation coefficients between these two variables and all other variables in the study, both GSF and SH were retained for further analysis.

Appropriate correlations among variables exist overall, allowing for testing of the relationships in the present study (Malhotra, 2010).

Table 19. Correlation Matrix of Seven Latent Variables

	1	2	3	4	5	6	7
1. GSF	.88						
2. PSC	.06	.78					
3. SH	.74	.19	.86				
4. SE	.54	-.09	.56	.88			
5. LS	.52	.18	.65	.47	.85		
6. AD	.25	.42	.23	.12	.13	.85	
7. ID	.07	.23	.12	.01	.11	.36	.90

Note: GSF = Generalized Self-Efficacy; PSC = Public Self-Consciousness; SH = State Hope; SE = Self-Esteem; LS = Life Satisfaction; AD = Assurance Dimension of Clothing Choice; ID = Individuality Dimension of Clothing Choice.

The diagonal values indicate reliabilities of each construct (Cronbach's α).

KMO Test and Bartlett's Test of Sphericity

To examine the significance of each item and the measure of sampling adequacy (MSA), the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity (p-value 0.0001) were utilized (Hair et al., 1998). Both were examined to investigate whether a confirmatory factor analysis was appropriate.

The Kaiser-Meyer-Olkin measure of sampling adequacy tests whether the partial correlations among factors are small. The KMO measure of sampling adequacy is used as an index when comparing the magnitudes of the observed correlation coefficients with

the magnitudes of the partial correlation matrix coefficients. This means that the KMO measure of sampling adequacy tests whether the partial correlations among factors in the model are small. The values of the KMO measure should be greater than 0.5 to show sampling adequacy for a satisfactory factor analysis.

Second, Bartlett's Test of Sphericity is another indicator to test the strength of the relationships among variables. Bartlett's test is examined to test the null hypothesis, which indicates whether the correlation matrix is an identity matrix. It is not appropriate to conduct a factor analysis if the correlation matrix of variables is an identity matrix, which would designate that the factor model is inappropriate. If the correlation matrix is an identity matrix, it means the variables in the population correlation matrix are absolutely not correlated. The observed significance level should be .000 in order to reject the null hypothesis. If the significance level is greater than .0001, it is not enough to reject (i.e., fail to reject) the null hypothesis, and it is not appropriate to conduct a factor analysis as the factor model is inappropriate.

Table 20. KMO Test and Bartlett's Test of Sphericity

Construct	Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)	Bartlett's Test of Sphericity Approx. Chi-Square (df)
Generalized Self-Efficacy	.91***	1260.68 (36)
Public Self-Consciousness	.83***	506.75 (21)
State Hope	.86***	839.95 (15)
Self Esteem	.89***	1543.78 (45)
Life Satisfaction	.85***	756.38 (10)
Assurance Dimension	.83***	1233.31 (15)
Individuality Dimension	.85***	615.24 (10)

***z-value = 3.45 (p <= .001).

As shown in Table 20, the KMO measure for each construct ranged from 0.83 to 0.91, and Bartlett's Test of Sphericity for each construct was significant at .000.

Therefore, it was concluded that the relationships among variables were strong, providing justification that the correlation matrix was not an identity matrix and that good indices exist for factor analysis. In other words, factor analysis for the present study can proceed.

The factor structure of survey measurements was tested with LISREL 8.8 as part of the Structural Equation Modeling analysis. Based on Structural Equation Modeling (SEM) via LISREL 8.8, factor analysis explores the pattern of relationships among the seven factors, and these patterns are represented by principal components of the factors. Examination of the loading of variables on each factor helps to identify the character of its underlying dimensions. In SEM, each factor is a latent variable in the measurement model. Therefore, SEM analyses can provide a statistical test of the goodness-of-fit for a proposed confirmatory factor solution, which traditional factor analysis techniques cannot provide (e.g., SPSS).

Confirmatory factor analysis (CFA) provides validation of scales for the measurement of specific constructs. In the CFA for the present study, the overall model fit indicates the degree to which the specified indicators show the hypothesized constructs for the main effects of self-concept (i.e., generalized self-efficacy, public self-consciousness, state hope, and self-esteem) and life satisfaction. In this study, the two-step procedure recommended by Anderson and Gerbing (1988) was used to establish the measurement and the structural model. There are three types of overall model fit

measures (i.e., absolute fit, incremental fit, and parsimonious fit) useful in CFA and SEM (see Table 21).

Absolute fit measures evaluate the overall model fit for both the structural and measurement models collectively, with no adjustment for the degree of fit inflation that might occur. Incremental fit measures compare the proposed model to another known model. Parsimonious fit measures assess the complexity of the model. Researchers are encouraged to employ at least one or more measures from each type (i.e., absolute fit, incremental fit, and parsimonious fit) (Hu & Bentler, 1999). However, an acceptable level of overall goodness-of-fit does not mean that it will meet the fit requirements for the measurement model, or that the structural model is fully supported. Hu and Bentler (1999) also suggest that researchers must evaluate each of these areas separately to confirm whether or not they meet the requirements, or to use these fit indices to identify potential problems that affect the overall goodness-of-fit.

As shown in Table 21, the CFA model for the main effect had a significant χ^2 index ($\chi^2 = 2636.00$, $df = 1013$; $p < .001$; $\chi^2/df = 2.60$). Regarding incremental fit measures, the NFI was 0.91 and CFI was 0.94, both of which are greater than 0.90, as recommended. Moreover, the normed chi-square (χ^2/df) is smaller than 3.0, as recommended by the literature (Brown, 2006). Another key index of fit is GFI, which was 0.74. The parsimonious fit index, the RMSEA, based on the concept of non-centrality, was 0.071, which is acceptable (Browne & Cudeck, 1993). The resulting overall fit of the measurement model was deemed to be good.

As shown in Table 21, the SEM model for the main effects had a significant χ^2 index ($\chi^2 = 2870.96$, $df = 1023$; $p < .001$; $\chi^2/df = 2.81$). Regarding incremental fit measures, the NFI was 0.90 and CFI was 0.94, both of which are equal to or greater than .90, as recommended. Moreover, the normed chi-square (χ^2/df) was smaller than 3.0, as recommended by the literature (Brown, 2006). Another key index of fit is GFI, which was 0.72. With regards to the parsimonious fit index, the RMSEA, which is based on the concept of non-centrality, was reported at an acceptable level of 0.075 (Browne & Cudeck, 1993). Furthermore, the error terms of the observed variables (within-construct) were allowed to correlate as suggested by the modification indices. Therefore, it was concluded that the measurement model yielded acceptable fit.

Table 21. Structural Equation Modeling Goodness of Fit Summary (N=318)

Construct	Fit Measure	Fit Guideline Criteria	Proposed Model (CFA)	Proposed Model (Main Effects in SEM)	Accepted
Absolute Fit	Chi-square (χ^2)	$p > .05$	2636.00 ($p < .000$)	2870.96 ($p < .000$)	
	Normed chi-square (χ^2 / Degree of Freedom)	$p < 3.0$	2.60	2.81	√
	Goodness-of-fit index (GFI)	$p > .90$.74	.72	
Incremental Fit	Normed Fit Index (NFI)	$p > .90$.91	.90	√
	Comparative Fit Index (CFI)	$p > .90$.94	.94	√
Parsimonious Fit	Root Mean Square Error of Approximation (RMSEA)	$.030 < p < .080$.071	.075	√

Source: Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1-55.

Seven constructs – generalized self-efficacy, public self-consciousness, state hope, self-esteem, life satisfaction, the assurance dimension of clothing choice, and the individuality dimension of clothing choice – were used to measure the factor model and structural equation model. As seen in Table 22, nine items were used to measure generalized self-efficacy (see Lambda X in Table 22). Items with loadings for generalized self-efficacy (e.g., GSF1 = 0.60, GSF2 = 0.53) were observed corresponding to the latent variable. Seven items were used to measure public self-consciousness. Items with loadings for public self-consciousness (e.g., PSC1 = 0.52, PSC3 = 0.59) were observed corresponding to the latent variable. Six items were used to measure state hope. Factor loadings for state hope were ranked from 0.57 to 0.82. The self-esteem factor was explained by ten items. Factor loadings for self-esteem were ranked from 0.47 to 0.83. Life satisfaction was measured with five items. Items with loadings for life satisfaction (e.g., LS1 = 0.81, LS2 = 0.86) were observed corresponding to the latent variable. Five items were used to measure the individuality dimension of clothing choice with factor loadings from 0.61 to 0.83. Six items were used to measure the assurance dimension of clothing choice. Completely standardized factor loadings for the assurance dimension of clothing choice were ranked from 0.38 to 0.95. Items that exhibit factor loadings of less than 0.40 should be eliminated (Nunnally, 1978). Item 6 (i.e., AD6) was eliminated from further analysis due to a low factor loading (0.38). A confirmatory factor analysis of the multi-item scales in the measurement model (see Table 23) shows that each factor loading of the indicators for each construct was statistically significant and sufficiently high for structural model testing.

Table 22. Completely Standardized Factor Loading

Construct	Factor Measure	Lambda X	z-statistic	Completely Standardized Factor Loading
Generalized Self-Efficacy	Self-concept	GSF1	1.00	.60
		GSF2	1.05	8.15***
		GSF3	1.22	9.04***
		GSF4	1.24	10.57***
		GSF5	1.07	9.57***
		GSF6	1.32	9.50***
		GSF7	1.42	11.05***
		GSF8	1.33	11.01***
		GSF9	1.34	10.65***
Public Self-Consciousness	Self-concept	PSC1	1.00	.52
		PSC2	1.07	7.36***
		PSC3	1.15	8.02***
		PSC4	1.12	7.37***
		PSC5	.96	7.59***
		PSC6	1.05	7.42***
		PSC7	1.20	6.86***
State Hope	Self-concept	SH1	1.00	.57
		SH2	1.46	9.70***
		SH3	1.12	8.74***
		SH4	1.73	10.29***
		SH5	1.51	10.54***
		SH6	1.65	10.50***
Self-Esteem	Self-concept	SE1	1.00	.70
		SE2	.80	11.86***
		SE3	1.09	11.81***
		SE4	.73	8.05***
		SE5	1.03	10.29***
		SE6	1.22	13.36***
		SE7	1.31	13.87***
		SE8	1.07	9.05***
		SE9	1.28	10.93***
		SE10	1.31	11.51***

Table 22. Completely Standardized Factor Loading (continued)

Construct	Factor Measure		Lambda X	z-statistic	Completely Standardized Factor Loading
Life Satisfaction	Life satisfaction	LS1	1.00		.81
		LS2	1.03	17.74***	.86
		LS3	1.06	18.27***	.88
		LS4	.79	12.89***	.68
		LS5	.67	8.71***	.48
Assurance Dimension	Clothing choice	AD1	1.00		.38
		AD2	1.85	12.21***	.65
		AD3	2.36	14.15***	.78
		AD4	2.37	14.01***	.95
		AD5	1.63	10.94***	.93
Individuality Dimension	Clothing choice	ID4	1.58	6.46***	.68
		ID1	1.00		.61
		ID2	1.37	11.00***	.83
		ID3	1.24	10.58***	.77
		ID5	1.11	9.91***	.70
		CD3	1.14	10.21***	.73

Note: First λ path was set to 1, therefore, no z-values are given

***z-value = 3.45 ($p \leq .001$).

Table 23 also lists the reliability and validity of the measurement model. To assess the psychometric properties, or reliability and validity of measurement model items, measurement model analyses, such as Cronbach's α , composite factor reliability (CR), and average variance extracted values (AVE), were used. Reliability was measured by composite factor reliability (CR) and Cronbach's α . To test convergent validity of the present study, average variance extracted (AVE) based on the measurement model constructs was used. Discriminant validity was also examined to assess construct validity (Hair et al., 1998).

Table 23. Measurement Validity and Reliability

Construct		Standardized Factor Loading (λ) (t-value)	Composite Reliability (CR)	Construct Reliability (Cronbach's α)	Average Variance Extracted (AVE)
Generalized Self- Efficacy (ξ_1)	GSF1	.60	.89	.88	.48
	GSF2	.53			
	GSF3	.61			
	GSF4	.75			
	GSF5	.65			
	GSF6	.65			
	GSF7	.80			
	GSF8	.80			
	GSF9	.76			
Public Self- Consciousness (ξ_2)	PSC1	.52	.79	.78	.35
	PSC2	.59			
	PSC3	.69			
	PSC4	.59			
	PSC5	.62			
	PSC6	.60			
	PSC7	.53			
State Hope (ξ_3)	SH1	.57	.87	.86	.53
	SH2	.71			
	SH3	.61			
	SH4	.79			
	SH5	.82			
	SH6	.81			
Self-Esteem (η_1)	SE1	.70	.89	.88	.46
	SE2	.70			
	SE3	.70			
	SE4	.47			
	SE5	.61			
	SE6	.80			
	SE7	.83			
	SE8	.53			
	SE9	.65			
	SE10	.68			

Table 23. Measurement Validity and Reliability (continued)

Construct		Standardized Factor Loading (λ) (t-value)	Composite Reliability (CR)	Construct Reliability (Cronbach's α)	Average Variance Extracted (AVE)
Life Satisfaction (η_2)	LS1	.81	.87	.85	.57
	LS2	.86			
	LS3	.88			
	LS4	.68			
	LS5	.48			
Individuality Dimension (η_3)	ID1	.61	.85	.85	.54
	ID2	.83			
	ID3	.77			
	ID4	.70			
	ID5	.73			
Assurance Dimension (η_4)	AD2	.65	.88	.90	.61
	AD3	.78			
	AD4	.95			
	AD5	.93			
	AD6	.68			

Note:

Composite Factor Reliability (CR) = $(\sum \lambda)^2 / [(\sum \lambda)^2 + (\sum \theta)]$

Average Variance Extracted Values (AVE) = $(\sum \lambda^2) / [(\sum \lambda^2) + (\sum \theta)]$

λ (Lambda): Completely Standardized Factor Loading Value

θ (Theta-Delta): Indicator error variances

Cronbach's alpha (α) = $N \cdot \bar{C} / [V\text{-bar} + (N-1) \cdot \bar{C}]$

N: Number of Items

\bar{C} : Average inter-item covariance among the items

V-bar: Average variance

Cronbach's α was used to verify the reliability with regards to internal consistency. An acceptable level is greater than 0.70 (Hair et al., 1998). To determine internal reliability, a factor loading value greater than 0.40 was used as a standard. To determine composite factor reliability (CR), a value greater than 0.70 was used a standard.

To assess construct validity, convergent validity was first tested. Convergent validity represents the degree to which two measurements of the same concept are

correlated (Hair et al., 1998). Convergent validity is indicated when different measurements are highly correlated. Furthermore, convergent validity indicates whether measurement scales illustrate the proposed concept as well as whether the instruments measure what they are intended to measure. Average variance extracted (AVE) should be larger than 0.50 to verify appropriate convergent validity.

As shown in Table 23, all seven constructs indicated high internal consistency via Cronbach's α as well as a high composite factor reliability (CR). Cronbach's α and composite reliability values were greater than 0.70, which indicate high reliability for each construct. The generalized self-efficacy factor was composed of nine items with a high reliability (CR = 0.89, Cronbach's α = 0.88). Second, the public self-consciousness factor was composed of seven items with a high reliability (CR = 0.79, Cronbach's α = 0.78). The state hope factor was composed of six items with a high reliability (CR = 0.87, Cronbach's α = 0.86). The self-esteem factor was composed of ten items with a high reliability (CR = 0.89, Cronbach's α = 0.88). The life satisfaction factor was composed of five items with a high reliability (CR = 0.87, Cronbach's α = 0.85). The individuality dimension of clothing choice was composed of five items and had a reliability greater than 0.70 (CR = 0.85, Cronbach's α = 0.85). Finally, reliability of the assurance dimension of clothing choice, composed of five items, was also high (CR = 0.88, Cronbach's α = 0.90).

The average variance extracted (AVE) value of constructs should exceed 0.50 for a relatively high level of variance (Fornell & Larcker, 1981). As shown in Table 23, AVE values for state hope, life satisfaction, the individuality dimension of clothing choice, and

the assurance dimension of clothing choice were greater than 0.50. The AVE value of public self-consciousness (0.35) was less than the acceptable level. The AVE values of generalized self-efficacy and self-esteem were very close to 0.50. Although the low value of AVE for public self-consciousness potentially suggests a concern with the validity of the construct, the overall convergent validity of the constructs in the measurement model was deemed to be acceptable for this exploratory study.

Fornell and Larcker (1981) suggest that, in order for a construct to be distinctive from other constructs (i.e., display discriminant validity), the square root of the average variance extracted for each construct, a diagonal element, needs to be greater than its correlations with other constructs, off-diagonal elements. As shown in Table 24, most of the bold diagonal values representing the square root of the average variance extracted ranged from 0.59 to 0.78, which was greater than their correlations with other constructs. An exception was the high correlation between generalized self-efficacy and state hope. Despite the fact that the correlation between generalized self-efficacy and state hope was high, it fell within the acceptable, marginal level, allowing further analysis to proceed (Malhotra, 2010). Therefore, discriminant validity was found to exist between constructs.

Table 24. Descriptive Statistics, Reliability, and Correlation Summary for Constructs (N=318)

Model Variables	Mean	SD	CR	Reliability (α)	Correlations						
					GSF	PSC	SH	SE	LS	AD	ID
GSF	5.31	.99	.89	.88	(.69)						
PSC	4.76	1.16	.79	.78	.07	(.59)					
SH	5.11	1.14	.87	.86	.75***	.20**	(.73)				
SE	5.40	1.13	.89	.88	.56***	-.09	.57***	(.68)			
LS	4.27	1.48	.87	.85	.52***	.17**	.65***	.48***	(.75)		
AD	5.73	1.23	.88	.90	.27***	.45***	.26***	.14*	.15*	(.78)	
ID	3.88	1.49	.85	.85	.10	.24***	.13*	.03	.12*	.36***	(.73)

Note: 1) * $p < .05$, ** $p < .01$, *** $p < .001$ (2 tailed).

2) The bold diagonal values are the square root of the average variance extracted for each construct.

3) GSF = Generalized Self-Efficacy; PSC = Public Self-Consciousness; SH = State Hope; SE = Self-Esteem; LS = Life Satisfaction; AD = Assurance Dimension of Clothing Choice; ID = Individuality Dimension of Clothing Choice

Structural Model Analysis and Hypothesis Testing

Structural equation modeling was used to test the proposed research framework and hypotheses. For this study, the main effects of the variables, including generalized self-efficacy, public self-consciousness, state hope, life satisfaction, and the two clothing choice dimensions (i.e., assurance and individuality), were tested based on Structural Equation Modeling (SEM) via LISREL 8.8. The analysis model tests the main effects of generalized self-efficacy, public self-consciousness, and state hope on self-esteem; the main effect of self-esteem on life satisfaction, the assurance dimension of clothing choice, and the individuality dimension of clothing choice; as well as the main effect of life satisfaction on the assurance dimension of clothing choice and the individuality dimension of clothing choice.

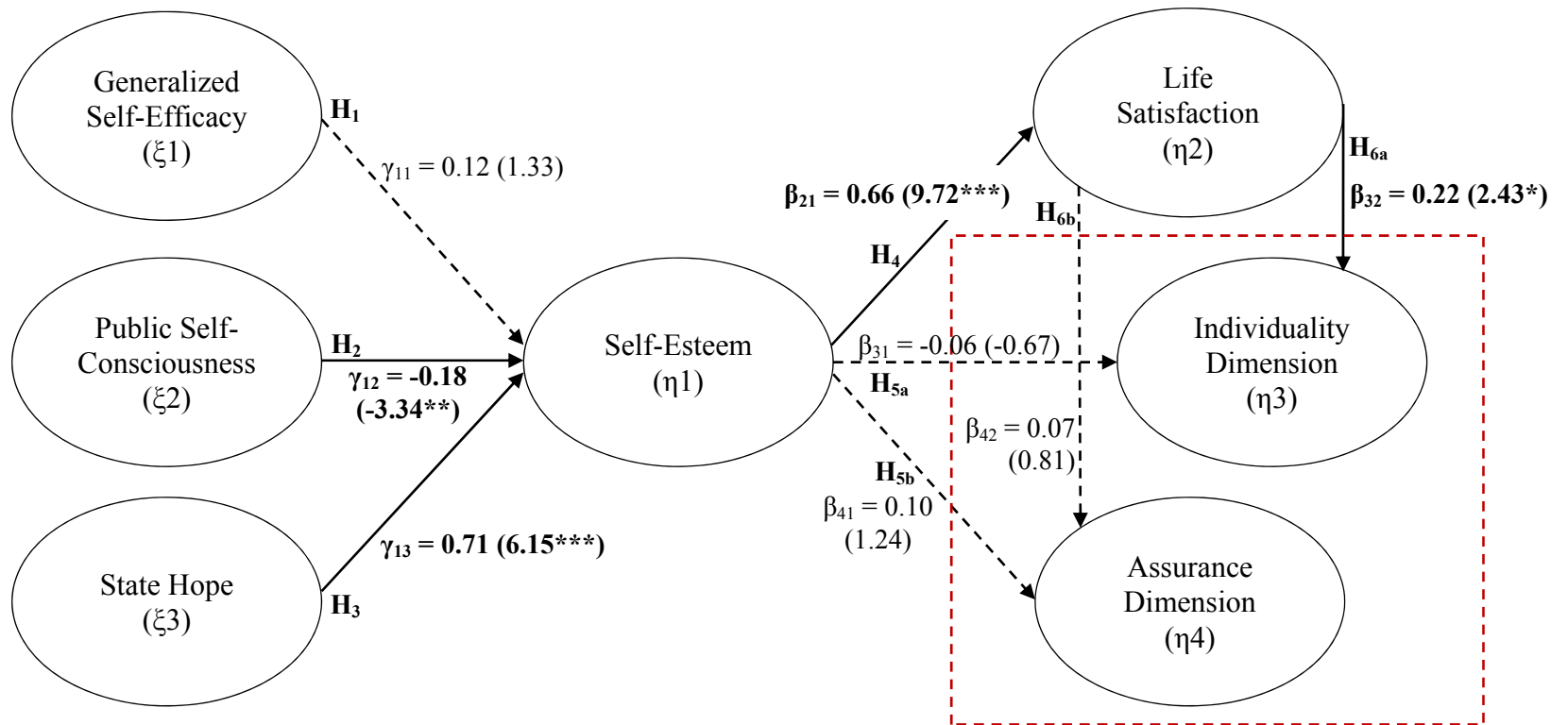
Test of Main Effects (Core Model)

Model Testing

To analyze structural models of the main effects, structural equation modeling (SEM) was conducted via the maximum-likelihood estimation procedure through LISREL 8.8. The relationships in the model were based on the theoretical associations of the constructs as discussed in Chapter II. Half of the hypothesized paths were significant at the $p < 0.01$ level based on the results of SEM. Squared multiple correlations (R^2) are reported for endogenous constructs as well as path coefficients and t-values for each statistically significant path in Appendix E. The chi-square statistic (χ^2), goodness-of-fit index (GFI), normed fit index (NFI), comparative fit index (CFI), and root mean square error of approximation (RMSEA) were used to evaluate model fit.

The path model had a χ^2 test-statistic of 2873.37 (df = 1023; $p < .000$) which is significant, and shows that the model does not fit the data well. Also, the GFI (0.72) was lower than its cut-off. However, other fit indices, including the NFI (0.90) and the CFI (0.94), were at or greater than the cut-off value of .90 (see Table 21, p. 108). Also, the RMSEA index is 0.076, with a 90 percent confidence interval between 0.072 and 0.079, indicating that the model fit is acceptable. Furthermore, the normed chi-square is 2.8, which meets fit guideline criteria for the fit measure ($p < 3.0$). Thus, most of the indices indicate that the proposed model fits the data well. The structural equation model for the main effects is displayed in Figure 15.

Figure 15. Original Structural Equation Model for the Main Effects



Note: *z-value (two-tailed) = 1.96 ($p \leq .05$), **z-value = 2.58 ($p \leq .01$), ***z-value = 3.45 ($p \leq .001$).

1. Indicator variables, correlations among exogenous variables, and disturbances have been omitted for notational simplicity

2. ^a Coefficient: Completely standardized solution

Hypothesis Testing

Based on Figure 15, the patterns of direct effects revealed by the path model suggest that half of the study's hypotheses are supported. The model specifically describes each path relationship and the results of SEM, which are shown in Table 25.

Hypothesis 1 proposed a positive relationship between disabled consumers' generalized self-efficacy and their self-esteem. There was no significant relationship between these two variables ($\gamma_{11} = 0.12$, $z\text{-value} = 1.33$, $p > .05$). A negative relationship between disabled consumers' public self-consciousness and their self-esteem was predicted in Hypothesis 2. The results of the hypothesis test supported H2 ($\gamma_{12} = -0.18$, $z\text{-value} = -3.34$, $p < .01$). Hypothesis 3, stating the direct, positive effect of state hope on self-esteem, was also supported ($\gamma_{13} = 0.71$, $z\text{-value} = 6.15$, $p < .001$).

A positive relationship between self-esteem and life satisfaction was proposed in Hypothesis 4. Results indicate a significant, positive relationship between the variables ($\beta_{21} = 0.66$, $z\text{-value} = 9.72$, $p < .001$), thereby supporting Hypothesis 4. Hypothesis 5a, proposed a positive effect of self-esteem on the individuality dimension of clothing choice ($\beta_{31} = -0.06$, $z\text{-value} = -0.67$, $p > .05$), and was rejected. Hypothesis 5b, which proposed a positive effect of self-esteem on the assurance dimension of clothing choice, was also rejected ($\beta_{41} = 0.10$, $z\text{-value} = 1.24$, $p > .05$).

Hypothesis 6a proposed a positive relationship between life satisfaction and the individuality dimension of clothing choice, which was supported by the data ($\beta_{32} = 0.22$, $z\text{-value} = 2.43$, $p < .05$). Hypothesis 6b proposed a positive relationship between life satisfaction and the assurance dimension of clothing choice, but the results did not

support the hypothesis ($\beta_{42} = 0.07$, $z\text{-value} = 0.81$, $p > .05$). Hypothesis 5c and 6c could not been tested due to the low reliability of the camouflage dimension of clothing choice.

Table 25. Results of Structural Equation Modeling (SEM), Main Effects

	Hypothesis	Standardized regression weight	z-value (significance)
H ₁ :	There will be a positive relationship between disabled consumers' generalized self-efficacy and their self-esteem.	0.12	1.33
H ₂ :	There will be a negative relationship between disabled consumers' public self-consciousness and their self-esteem.	-0.18	-3.34**
H ₃ :	There will be a positive relationship between disabled consumers' state hope and their self-esteem.	0.71	6.15***
H ₄ :	There will be a positive relationship between disabled consumers' self-esteem and their life satisfaction.	0.66	9.72***
H _{5a} :	There will be a positive relationship between disabled consumers' self-esteem and the individuality dimension of clothing selection.	-0.06	-0.67
H _{5b} :	There will be a positive relationship between disabled consumers' self-esteem and the assurance dimension of clothing selection.	0.10	1.24
H _{5c} :	There will be a negative relationship between disabled consumers' self-esteem and the camouflage dimension of clothing selection.	N/A	N/A
H _{6a} :	There will be a positive relationship between disabled consumers' life satisfaction and the individuality dimension of clothing selection.	0.22	2.43*
H _{6b} :	There will be a positive relationship between disabled consumers' life satisfaction and the assurance dimension of clothing selection.	0.07	0.81
H _{6c} :	There will be a negative relationship between disabled consumers' life satisfaction and the camouflage dimension of clothing selection.	N/A	N/A

Note: $N = 318$, * $z\text{-value}$ (two-tailed) = 1.96 ($p \leq .05$), ** $z\text{-value}$ = 2.58 ($p \leq .01$), *** $z\text{-value}$ = 3.45 ($p \leq .001$).

In summary, H₂, H₃, and H₄ were fully supported and H₆ was partially supported. The main effect of the relationships among variables, including public self-consciousness, state hope, self-esteem, life satisfaction, and the individuality dimension of clothing choice, were substantiated. Although H₁ and H₅ were not supported, generalized self-efficacy and the assurance dimension of clothing choice variables were further investigated based on the suggestions from modification indices (see Table 26).

Table 26. Results of Structural Equation Modeling (SEM), Main Effects

	Hypothesis	Supported?
H ₁	There will be a positive relationship between disabled consumers' generalized self-efficacy and their self-esteem.	N
H ₂	There will be a negative relationship between disabled consumers' public self-consciousness and their self-esteem.	Y
H ₃	There will be a positive relationship between disabled consumers' state hope and their self-esteem.	Y
H ₄	There will be a positive relationship between disabled consumers' self-esteem and their life satisfaction.	Y
H _{5a}	There will be a positive relationship between disabled consumers' self-esteem and the individuality dimension of clothing selection.	N
H _{5b}	There will be a positive relationship between disabled consumers' self-esteem and the assurance dimension of clothing selection.	N
H _{6a}	There will be a positive relationship between disabled consumers' life satisfaction and the individuality dimension of clothing selection.	Y
H _{6b}	There will be a positive relationship between disabled consumers' life satisfaction and the assurance dimension of clothing selection.	N

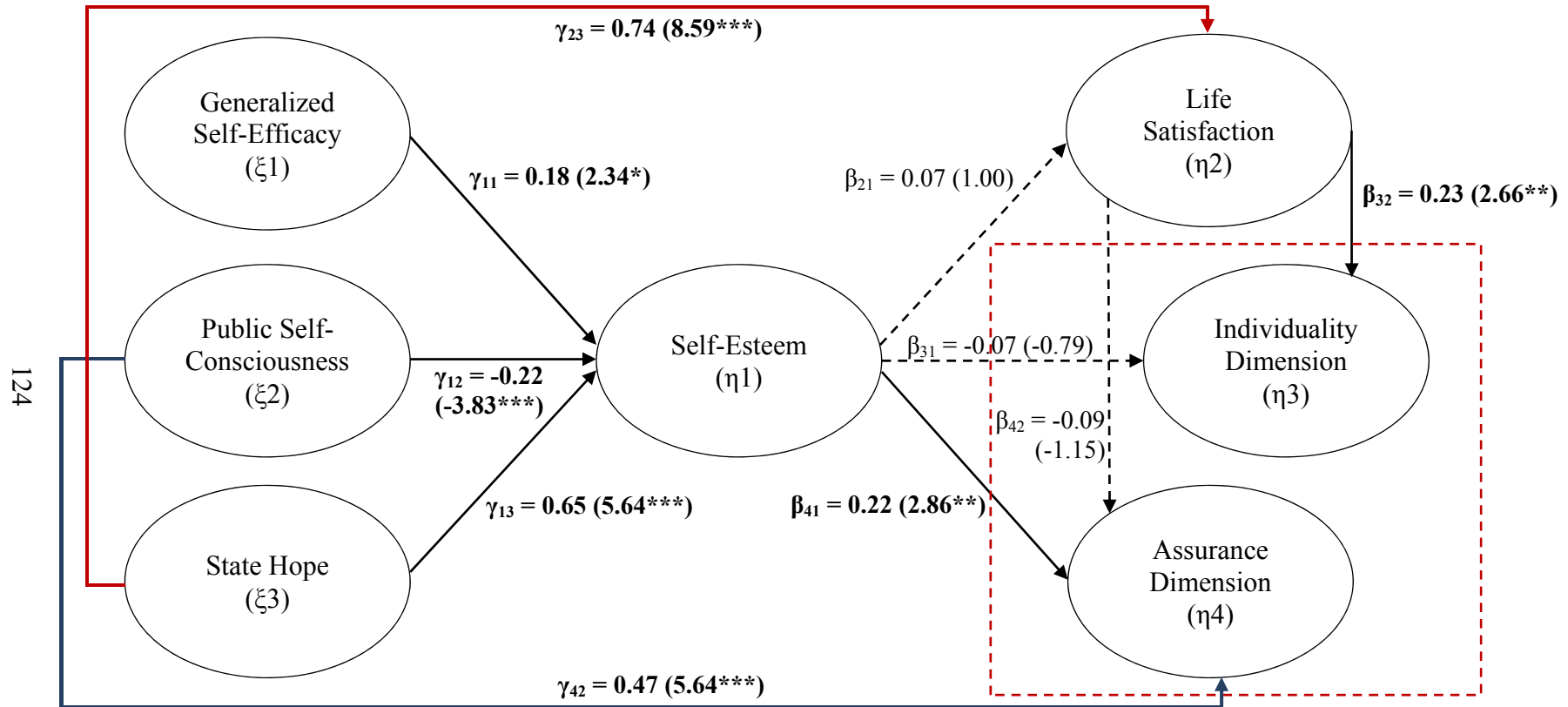
Note: Y denotes Yes, N denotes No.

Suggestions from Modification Indices

The modification indices (MI) for the main effects suggested the existence of a direct relationship between state hope and life satisfaction, as well as a direct relationship between public self-consciousness and the assurance dimension of clothing choice (see Figure 16). The direct effect of state hope on life satisfaction indicated that disabled consumers who have high state hope were more likely to be satisfied with their lives than disabled consumers with low state hope. Interestingly, a direct effect of self-esteem on life satisfaction was not found. The direct effect of public self-consciousness on the assurance dimension of clothing choice suggested that disabled consumers who have high public self-consciousness were more likely to choose clothing for assurance, helping them have greater self-confidence.

Based on inclusion of these two additional paths, the adjusted model had a χ^2 test-statistic of 2285.51 ($df = 932$; $p < .000$). In addition, the GFI (0.76) was improved from that of the original model. Other fit indices, including the NFI (0.91) and the CFI (0.95), were greater than the cut-off value of 0.90. Also, the RMSEA index was 0.068, with a 90 percent confidence interval between 0.064 and 0.071, indicating that the model fit was acceptable. Furthermore, the normed chi-square was 2.45, thereby meeting the fit guideline criteria of the measure ($p < 3.0$). Thus, most of the model indices indicate that the model fits the data well and the fit of this adjusted model was improved compared to that of the original model.

Figure 16. Adjusted Path Model for the Main Effects



Note: *z-value (two-tailed) = 1.96 ($p \leq .05$), **z-value = 2.58 ($p \leq .01$), ***z-value = 3.45 ($p \leq .001$).

1. Indicator variables, correlations among exogenous variables, and disturbances have been omitted for notational simplicity

2. ^a Coefficient: Completely standardized solution

As shown in Table 27, based on the modification indices, a positive relationship between disabled consumers' general self-efficacy and self-esteem was found ($\gamma_{11} = 0.18$, $z\text{-value} = 2.34$, $p < .05$). In addition, a negative relationship between disabled consumers' public self-consciousness and self-esteem was found in the adjusted model ($\gamma_{12} = -0.22$, $z\text{-value} = -3.83$, $p < .001$). Disabled consumers' public self-consciousness also affected the assurance dimension of clothing choice directly ($\gamma_{42} = 0.47$, $z\text{-value} = 5.64$, $p < .001$). A positive effect of state hope on self-esteem was also found ($\gamma_{13} = 0.65$, $z\text{-value} = 5.64$, $p < .001$). Additionally, a direct effect of state hope on life satisfaction was suggested from modification indices and a significant relationship between the two was found ($\gamma_{23} = 0.74$, $z\text{-value} = 8.59$, $p < .001$).

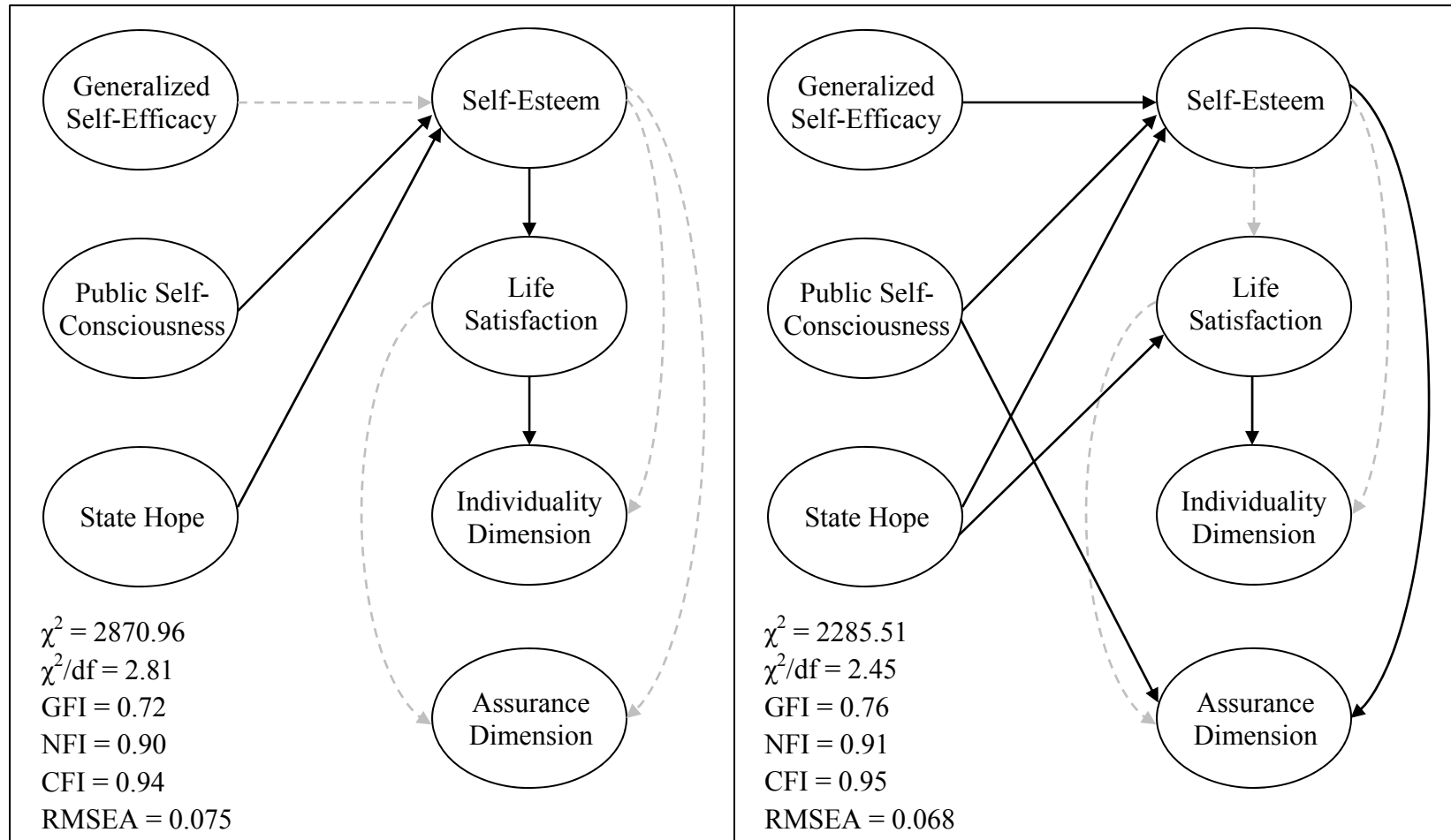
Based on the adjusted path model, a positive relationship between self-esteem and life satisfaction for individuals with disabilities was not found ($\beta_{21} = 0.07$, $z\text{-value} = 1.00$, $p > .05$), which is a different result than in the original model. A positive effect of self-esteem on the individuality dimension of clothing choice ($\beta_{31} = -0.07$, $z\text{-value} = -0.79$, $p > .05$) was not found, but interestingly, self-esteem positively influenced the assurance dimension of clothing choice ($\beta_{41} = 0.22$, $z\text{-value} = 2.86$, $p < .01$). Furthermore, a positive relationship between life satisfaction and the individuality dimension of clothing choice was found ($\beta_{32} = 0.23$, $z\text{-value} = 2.66$, $p < .01$). However, there was no significant relationship between life satisfaction and the assurance dimension of clothing choice ($\beta_{42} = -0.09$, $z\text{-value} = -1.15$, $p > .05$) (see Table 27). Overall, in the adjusted model, two additional paths were explained and the fit was improved (see Figure 17).

Table 27. Supported Relationships in the Adjusted Path Model

Relationships	Standardized regression weight	z-value (significance)	Supported
A positive relationship between disabled consumers' generalized self-efficacy and self-esteem	0.18	2.34*	Y
A negative relationship between disabled consumers' public self-consciousness and self-esteem	-0.22	-3.83***	Y
A positive relationship between disabled consumers' state hope and self-esteem	0.65	5.64***	Y
A positive relationship between disabled consumers' self-esteem and life satisfaction	0.07	1.00	N
A positive relationship between disabled consumers' self-esteem and the individuality dimension of clothing selection	-0.07	-0.79	N
A positive relationship between disabled consumers' self-esteem and the assurance dimension of clothing selection	0.22	2.86**	Y
A positive relationship between the individuality dimension of clothing selection and disabled consumers' life satisfaction	0.23	2.66**	Y
A positive relationship between the assurance dimension of clothing selection and disabled consumers' life satisfaction	-0.09	-1.15	N
Two Additional Paths suggested by Modification Indices (MI)			
A positive relationship between disabled consumers' state hope and life satisfaction	0.74	8.59***	Y
A positive relationship between disabled consumers' public self-consciousness and assurance dimension of clothing selection	0.47	5.64***	Y

Note: Y denotes Yes, N denotes No.

Figure 17. Original (left) and Adjusted Path (right) Models for Main Effects



Note: Black lines represent significant paths; Gray broken lines represent non-significant paths.

See Figure 15 (p. 119) and Figure 16 (p. 124) for detailed values and coefficients.

Summary

This chapter provided an analysis of the survey responses. A description of the sample and measurement model analysis for main effects was included. Hypotheses were tested based on the structural equation model, and the model fit for both the CFA and the SEM was deemed to be good. Based on the structural equation modeling analysis, it was determined that half of the hypotheses were supported. Additionally, the results based on suggestions of modification indices revealed additional paths and fit improvement. The next chapter includes a discussion of conclusions based on the findings and provides suggestions for future research.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

This chapter summarizes key findings and connects these findings to previous research. Additionally, recommendations based on the findings, as well as ideas for future research are presented. This chapter is organized as follows: (1) Discussion, (2) Conclusions, (3) Implications and Recommendations, and (4) Limitations and Suggestions for Further Research.

Discussion

The findings of this study are discussed in relation to previous research. First, the findings of the original path model are discussed according to the order of hypothesis testing. Second, the findings of the adjusted path model are discussed for the additional paths found as well as the one path that was eliminated from the original model.

Original Model

The purpose of this study was to investigate the relationships among various aspects of self-concept (i.e., generalized self-efficacy, public self-consciousness, state hope, and self-esteem), clothing selection (i.e., individuality, assurance, and camouflage), and life satisfaction. Specifically, this study aimed to examine the impact that aspects of disabled consumers' self-concept have upon the types of clothing they select (i.e., clothing that expresses individuality, clothing that improves their perceptions of themselves, clothing that camouflages the body) and their satisfaction with their lives.

Furthermore, a goal of this study was to develop and test a conceptual framework for understanding disabled consumers' self-concept and life satisfaction as related to clothing selection.

To examine the relationships among various aspects of self-concept, clothing selection, and life satisfaction for individuals with disabilities, four primary objectives guided the study: (1) to examine the direct effects of disabled individuals' multifaceted self-concept (i.e., generalized self-efficacy, public self-consciousness, and state hope) on self-esteem; (2) to investigate the direct effect of disabled individuals' self-esteem on life satisfaction; (3) to assess the direct effect of disabled consumers' self-esteem on clothing selection (i.e., individuality, assurance, and camouflage); and (4) to explore the direct effect of disabled individuals' life satisfaction on clothing selection.

Objective 1: To Examine the Direct Effects of Disabled Consumers' Multifaceted Self-Concept on Self-Esteem

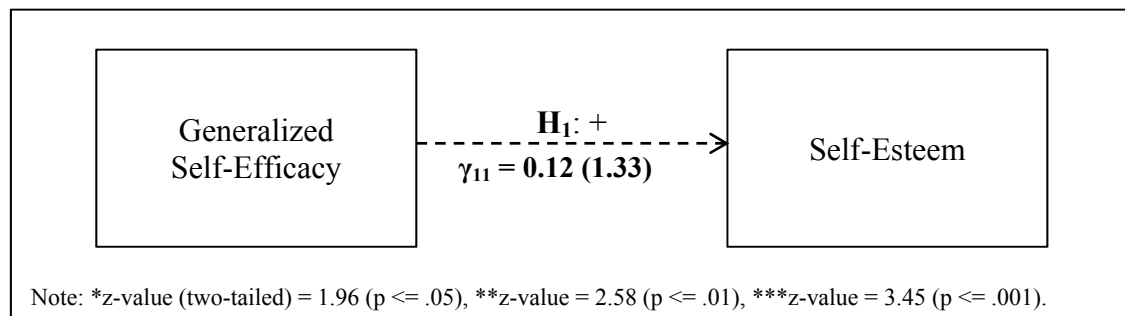
The relationship between disabled consumers' generalized self-efficacy and self-esteem. Hypothesis 1 predicted a positive relationship between generalized self-efficacy and self-esteem for individuals with disabilities. However, H_1 was not supported (γ_{11} : 0.12 (1.33), $p > .05$) (see Figure 18). This may be because of the high correlation between generalized self-efficacy and other variables in the model. In particular, generalized self-efficacy had a high correlation with state hope ($R^2 = 0.75$, $p = .116$). If a pair of variables has a correlation higher than 0.70, this indicates that a positive and strong linear relationship exists between them. Thus, the correlation between generalized self-efficacy and state hope suggests that the two constructs may be assessing a similar concept. It may

be difficult therefore to assess the relative importance of the two constructs (i.e., generalized self-efficacy and state hope) for explaining the variation in self-esteem among disabled consumers (Malhotra, 2010).

Interestingly, the relationship between generalized self-efficacy and self-esteem was not significant in the original model (see Figure 18), a finding that does not support that of previous research. Although generalized self-efficacy was positively related to self-esteem for nondisabled consumers in previous studies (Judge et al., 1998), in this study, a positive relationship was not found. Moreover, this finding was also different from that of the preliminary qualitative study, which indicated that interviewees felt good about themselves when they were able to perform certain tasks. Yet, instead of suggesting that for disabled individuals, feelings of self-worth and positive attitude toward the self are not affected by belief in the ability to solve difficult problems, it may be the case that for disabled individuals, self-efficacy does not have a direct influence on self-esteem when other components of self-concept (e.g., public self-consciousness, state hope, or other appearance related self-concept factors) are also considered. For instance, it is possible that generalized self-efficacy has an indirect influence on self-esteem through state hope. In this case, disabled individuals' ability to overcome problems or challenges in the past could have a direct effect on their hope for a similar ability to exist in the future when they encounter difficulties. On the other hand, state hope could be a broader construct that actually encompasses self-efficacy. In this case, both state hope and self-efficacy are unnecessary in the model; by assessing state hope, researchers would be assessing the self-efficacy component of the construct. As Snyder et al. (2002)

found, hope in general can be a good determinant of academic success in college, and it may be related to self-efficacy. Applying Snyder et al.'s (2002) finding to the present research, disabled individuals who have hope also have confidence in their ability to perform certain tasks because they have been successful in the past. Thus, further examination of how the two constructs may be related to disabled consumers' self-esteem is needed.

Figure 18. The Relationship between Disabled Consumers' Generalized Self-Efficacy and Self-Esteem



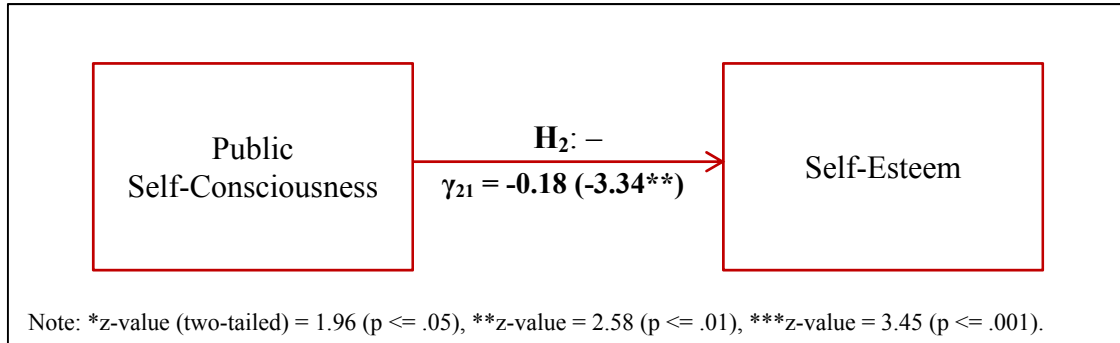
The relationship between disabled consumers' public self-consciousness and self-esteem. According to Kwon and Shim (1999), public self-consciousness, referring to the degree to which an individual is concerned with his/her appearance and actual behavior in a social environment, is related to body satisfaction and its influence on clothing use. Kwon and Shim (1999) found that nondisabled individuals with high public self-consciousness had lower self-esteem. Based on this finding, as well as findings of my preliminary study, public self-consciousness was predicted to negatively affect disabled individuals' self-esteem (H₂). Results indicate that H₂ was supported (γ_{21} : -0.18 (-3.34), p < .01). Similar to Kwon and Shim's (1999) study of individuals without disabilities, the

finding of the present study indicates that individuals with disabilities who have higher public self-consciousness have lower self-esteem (see Figure 19).

This finding suggests that disabled consumers who are more concerned about what other people think of them are more likely to feel less positive about themselves. That is, if a disabled consumer worries too much about making a good impression, he/she is more likely to be dissatisfied with him or herself. This finding should be further studied with regards to self-monitoring. As nondisabled individuals who are concerned with their self-presentation are more likely to monitor themselves in order to achieve their desired public appearances, this may impact their self-esteem (DiStefano & Motl, 2009). It may be the case that public self-consciousness and self-monitoring behavior are similar constructs, and disabled individuals who are high self-monitors have low self-esteem.

This finding also suggests that, in terms of public self-consciousness, disabled individuals do not differ from nondisabled individuals. Therefore, society should not treat individuals with disabilities differently from them. As discussed in Chapter I, disabled consumers are often misunderstood by society, which increases prejudice and, in turn, detachment of disabled consumers from society (Grewal et al., 2002). Thus, all people in society need to be educated to treat individuals with disabilities equally so that they will not be concerned with what other people think about them, or how other people judge them. It is likely that a decrease in prejudice would increase their self-esteem.

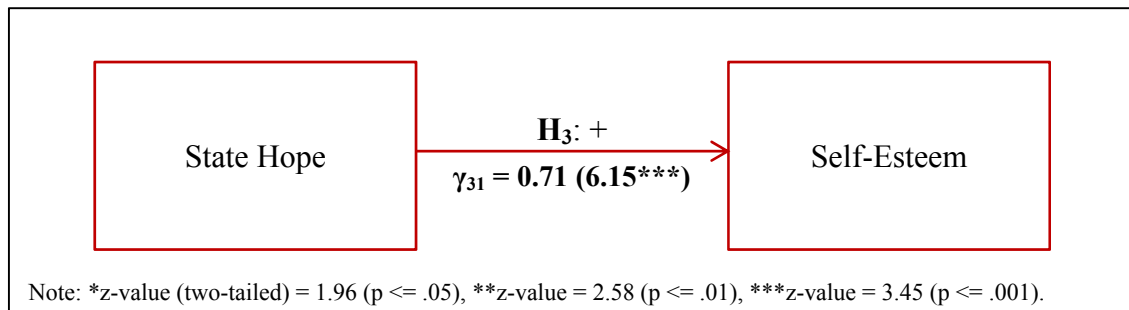
Figure 19. The Relationship between Disabled Consumers' Public Self-Consciousness and Self-Esteem



The relationship between disabled consumers' state hope and self-esteem.

Hypothesis 3 predicted a positive relationship between disabled consumers' state hope and self-esteem, and this relationship was strongly supported by the data (γ_{31} : 0.71 (6.15), $p < .001$). This means that disabled individuals who have high state hope tend to have positive self-esteem. This result supports that of Snyder et al. (1996), who found that state hope was positively related to self-esteem for nondisabled individuals. Similar to what was found in my preliminary study, this result revealed that disabled consumers' perceptions about their actual achievements, or victory over difficulties, influenced their self-esteem in a positive fashion (see Figure 20). As with public self-consciousness, the direction of the relationship between state hope and self-esteem for disabled and nondisabled individuals (Snyder et al., 1996) did not differ. Focusing on the similarities that both groups share rather than differences may help to diminish prejudice and further build disabled individuals' self-esteem.

Figure 20. The Relationship between Disabled Consumers' State Hope and Self-Esteem



Overall, this study found that disabled consumers' self-esteem is related to two aspects of their multifaceted self-concept, their public self-consciousness as well as their state hope. Even though a significant relationship between generalized self-efficacy and self-esteem was not found, the significant relationships between the other two variables (i.e., public self-consciousness and state hope) and self-esteem provide an important indication of greater similarities than differences between nondisabled and disabled individuals.

Objective 2: To Investigate the Direct Effect of Disabled Consumers' Self-Esteem on Life Satisfaction

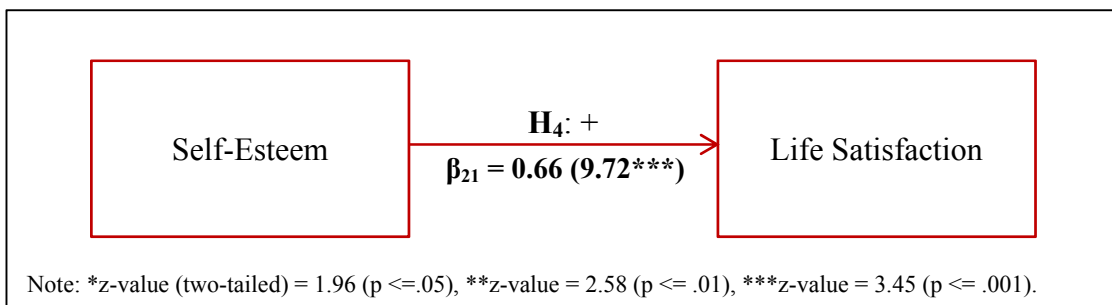
The relationship between disabled consumers' self-esteem and life satisfaction.

Hypothesis 4 proposed a positive relationship between disabled consumers' self-esteem and life satisfaction. Results strongly supported H₄ ($\beta_{21} = 0.66$ (9.72), $p < .001$), indicating that disabled consumers with high self-esteem tend to be more satisfied with their lives than those with low self-esteem (see Figure 21). The same relationship between self-esteem and life satisfaction was found for nondisabled individuals in past research (Schwartz & Strack, 1999). Self-esteem often affects nondisabled individuals'

emotional responses (Diener et al., 1985). In line with these studies on nondisabled individuals, this idea is also supported with respect to individuals with disabilities from the results of the present study.

Based on support for H₄, individuals with disabilities who feel that they have a number of good qualities are more likely to think that their lives come close to what they want them to be. That is, the positivity of a person's self-concept affects his/her overall feelings and attitudes about his/her life. This finding also supports the work of Campbell (1981), Kinney and Coyle (1992), and Diener and Diener (2009), wherein individuals tend to believe their lives are close to their ideal when they feel that they have a number of good qualities. Importantly, the present study suggests that self-esteem is a predictor of life satisfaction, regardless of whether one is disabled or not. Indeed, a key finding from the present research is that self-esteem is an important construct that must be addressed for improving the lives of disabled individuals.

Figure 21. The Relationship between Disabled Consumers' Self-Esteem and Life Satisfaction



Objective 3: To Assess the Direct Effect of Disabled Consumers' Self-Esteem on Clothing Selection

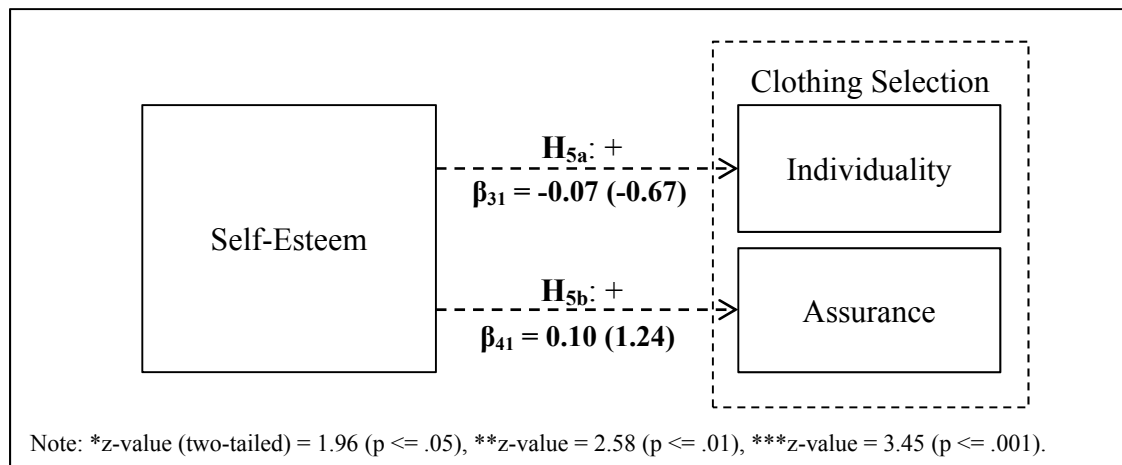
The relationship between disabled consumers' self-esteem and clothing choice dimensions. According to Kwon and Parham (1994), clothing choice can be described by five dimensions. As reviewed in Chapter II, these dimensions include individuality (e.g., clothing that makes a person distinctive), assurance (clothing that helps a person to have self-confidence), camouflage (clothing that hides the figure), fashionability (clothing that is stylish), and comfort (clothing that is comfortable). The present study focused on the first three dimensions of individuality, assurance, and camouflage because they are the dimensions of clothing choice most related to self-concept and emerged as crucial aspects of clothing choice from my preliminary study.

Hypothesis 5a proposed that disabled consumers' self-esteem was positively related to the individuality dimension of clothing choice. However, H_{5a} was not supported ($\beta_{41} = -0.06$ (-0.67), $p > .05$), and results indicate that disabled consumers' self-esteem is not related to the individuality dimension of clothing choice. In contrast to the findings of Kwon and Parham (1994), self-esteem was not found to be related to disabled consumers' use of clothing to make them look different from others (see Figure 22).

Hypothesis 5b predicted that disabled consumers' self-esteem was positively related to the assurance dimension of clothing choice. However, H_{5b} was rejected ($\beta_{31} = 0.10$ (1.24), $p > .05$). This result did not support Kwon and Parham's (1994) finding that affective evaluations of the self are related to clothing selection practices in terms of self-confidence (see Figure 22).

Hypothesis 5c assumed that disabled consumers' self-esteem was negatively related to the camouflage dimension of clothing choice. However, H_{5c} could not be tested due to the low reliability of the factor. One of the items from the camouflage dimension of clothing choice loaded on the individuality dimension of clothing choice when it was reversed (Item 3 of the camouflage dimension variable). The low reliability might be explained by the factor that the camouflage dimension of clothing choice is really capturing, which is the opposite of the individuality dimension. That is, if individuals with disabilities strongly disagree with the individuality dimension of clothing choice (e.g., When I go out, I tend to select clothes that make me stand out), it could be interpreted that they would also strongly agree with the item of the camouflage dimension of clothing choice that states, "When I go out, I tend to select clothes that hide the parts of the body that I do not like."

Figure 22. The Relationship between Disabled Consumers' Self-Esteem and Clothing Selection



Contrary to expectations, results for H_{5a} and H_{5b} suggest that for individuals with disabilities, self-esteem may not be directly related to the three clothing choice dimensions (i.e., individuality, assurance, and camouflage dimensions). This finding differs from that of Daters (1990), whose study revealed that self-esteem is related to psychological clothing choice, especially for nondisabled adolescents. Daters did not examine the variables related to disabled consumers; therefore, disabled consumers may differ with respect to clothing choice. It may be the case that self-esteem affects different dimensions of clothing choice than the ones proposed for nondisabled individuals by Kwon and Parham (1994).

Objective 4: To Assess the Direct Effect of Disabled Consumers' Life Satisfaction on Clothing Selection

The relationship between life satisfaction and clothing selection. Hypothesis 6a proposed that there is a positive relationship between disabled consumers' life satisfaction and the individuality dimension of clothing choice. According to the findings from the preliminary study, respondents tended to choose clothing to express both positive evaluations of themselves relative to satisfaction or hide negative aspects of themselves. Moreover, as Sontag and Schlater (1995) found, aesthetic satisfaction is often related to an individual's life satisfaction. This means that an individual who is satisfied with his or her appearance is more likely to be satisfied with his/her life. Thus, it was expected that disabled individuals who are satisfied with their lives will be more likely to select clothing to express their distinctive identities. H_{6a} was supported by the data ($\beta_{32} = 0.22$ (2.43, < .05) (see Figure 23). This finding is consistent with that of the preliminary

study, in that participants selected clothing to express a unique identity and communicate life accomplishments (e.g., one participant selected colorful clothes to show that she overcame a disease).

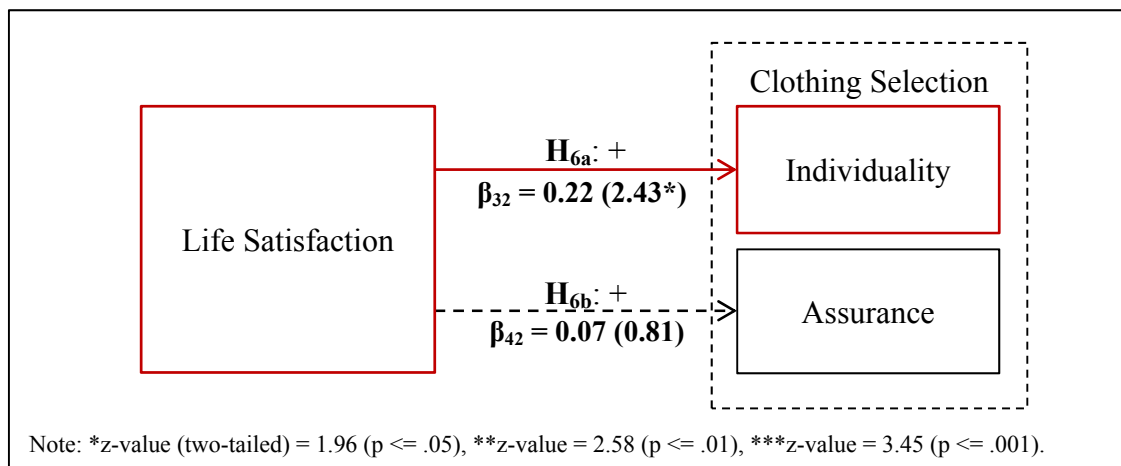
Hypothesis 6b predicted that there was a positive relationship between disabled consumers' life satisfaction and the assurance dimension of clothing choice. However, H_{6b} was not supported by the data ($\beta_{42} = 0.07$ (0.81), $p > .05$). This result suggests that disabled consumers' life satisfaction is not related to their selection of clothing for assurance (see Figure 23).

Hypothesis 6c posited that disabled consumers' life satisfaction was negatively related to the camouflage dimension of clothing choice. However, H_{6c} could not be tested because of the low reliability of the camouflage dimension of clothing choice. But, as stated in the H_{5c} discussion, one of the items from the camouflage dimension of clothing choice loaded under the individuality dimension of clothing choice when it was reversed. Therefore, it may be that the camouflage dimension of clothing choice is the opposite dimension of the individuality dimension of clothing choice. That is, if individuals with disabilities strongly disagree with the individuality dimension of clothing choice, then they would by default strongly agree with one portion of the camouflage dimension (not the whole dimension, but partially in terms of clothing choice).

These findings suggest that disabled individuals who are satisfied with their lives like to express their uniqueness through what they wear, and thus use clothing as a tool to express their life satisfaction. In as much as the camouflage dimension of clothing choice may have been a reversed dimension of the individuality dimension of clothing choice,

individuals with disabilities may be more likely to hide their identities, or use clothing to camouflage their identities, if they are not satisfied with their lives. Interestingly, disabled individuals use clothing to draw attention to themselves when overcoming disability-related challenges, but not to highlight their disabilities. In other words, disabled individuals may not mind standing out from the crowd as long as their current appearance reflects challenges of the past as opposed to present or future challenges.

Figure 23. The Relationship between Disabled Consumers' Life Satisfaction and Clothing Selection

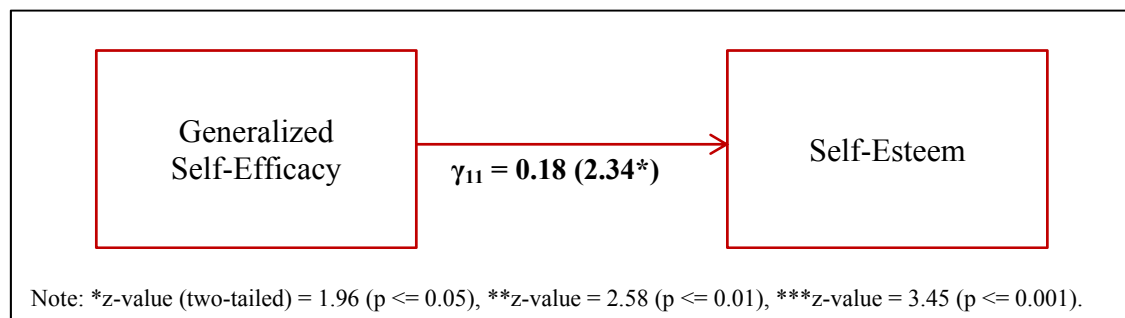


Adjusted Path Model

As discussed in Chapter IV, two items, one from the self-esteem variable and one from the state hope variable, were eliminated. Two additional paths were added. These paths include the relationship between state hope and life satisfaction and the relationship between public self-consciousness and the assurance dimension of clothing choice. Based on these changes, four additional significant paths were found, and one path which was significant in the original model became non-significant.

A positive relationship between generalized self-efficacy and self-esteem was found (γ_{11} : 0.18 (2.34), $p < .05$) (see Figure 24). This path was not supported in the original model (see Figure 17, p. 127). This finding indicates that disabled individuals who strongly believe that they have the capability to perform certain tasks are more likely to have positive attitudes toward themselves. This finding is consistent with that of Judge et al. (1998), who found a positive relationship between generalized self-efficacy and self-esteem for nondisabled individuals.

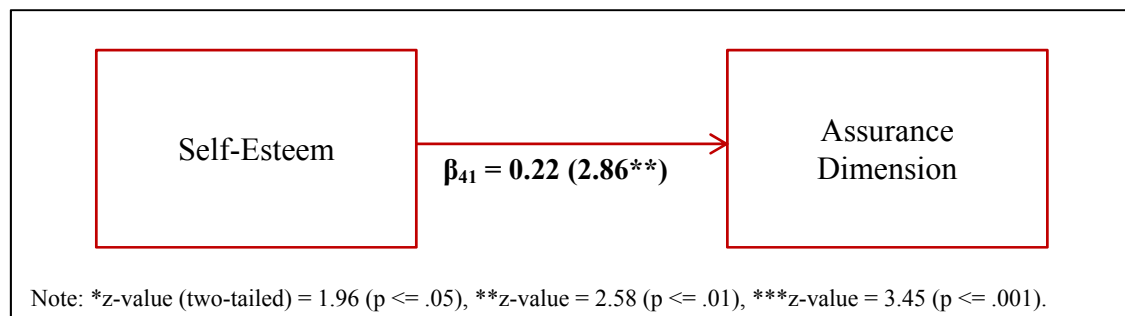
Figure 24. The Relationship between Disabled Consumers' Generalized Self-Efficacy and Self-Esteem



A positive relationship between self-esteem and the assurance dimension of clothing choice was found (β_{41} : 0.22 (2.86), $p < .01$) (see Figure 25). This relationship was not supported in the original model (see Figure 21, p. 135). This finding indicates that disabled individuals who have positive attitudes toward themselves are more likely to choose clothing to enhance their feelings about themselves. This finding is similar to Kwon and Parham's (1994) study, in which they found a positive relationship between body image and the assurance dimension of clothing choice among nondisabled individuals. Moreover, this finding supported the idea that clothing can be used as a

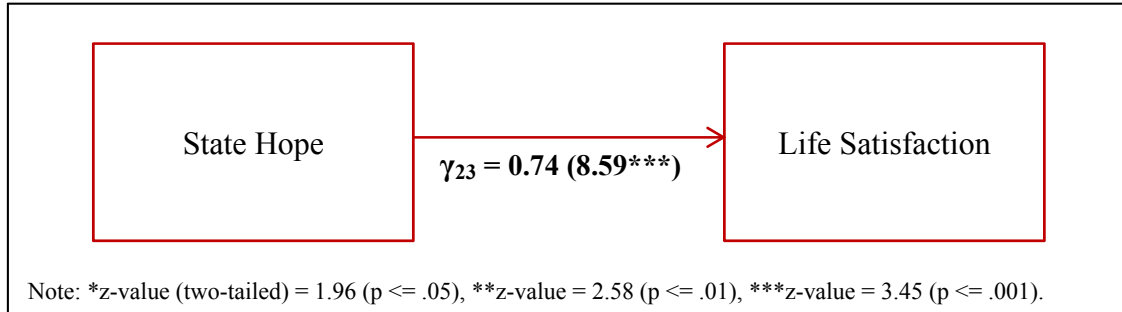
nonverbal and meaningful communication tool to express the self (Damhorst, Miller-Spillman, & Michelman, 2005). Disabled consumers, like nondisabled consumers, use clothing to express themselves to others.

Figure 25. The Relationship between Disabled Consumers' Self-Esteem and the Assurance Dimension of Clothing Choice



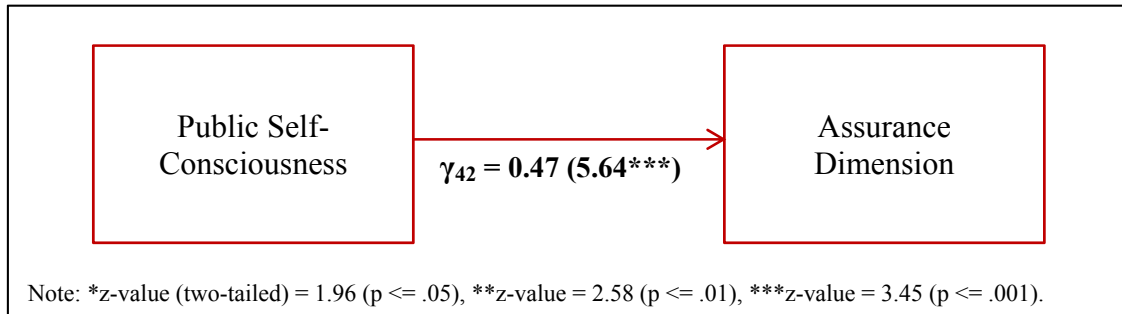
A direct effect of state hope on life satisfaction was found (γ_{23} : 0.74 (8.59), $p < .001$) (see Figure 26). This indicates that disabled consumers who have high state hope are more likely to be satisfied with their lives than those with low state hope. As Snyder et al. (1996) found, state hope was related to more positive and fewer negative thoughts of individuals each day; this finding supports the idea of a relationship between a sense of goal-directed determination and life satisfaction. Additionally, this finding is consistent with the finding of Barnum et al. (1998), wherein state hope was associated with positive psychological health-related outcomes (e.g., less disruptive behavior disorders) among both adults and children.

Figure 26. The Relationship between Disabled Consumers' State Hope and Life Satisfaction



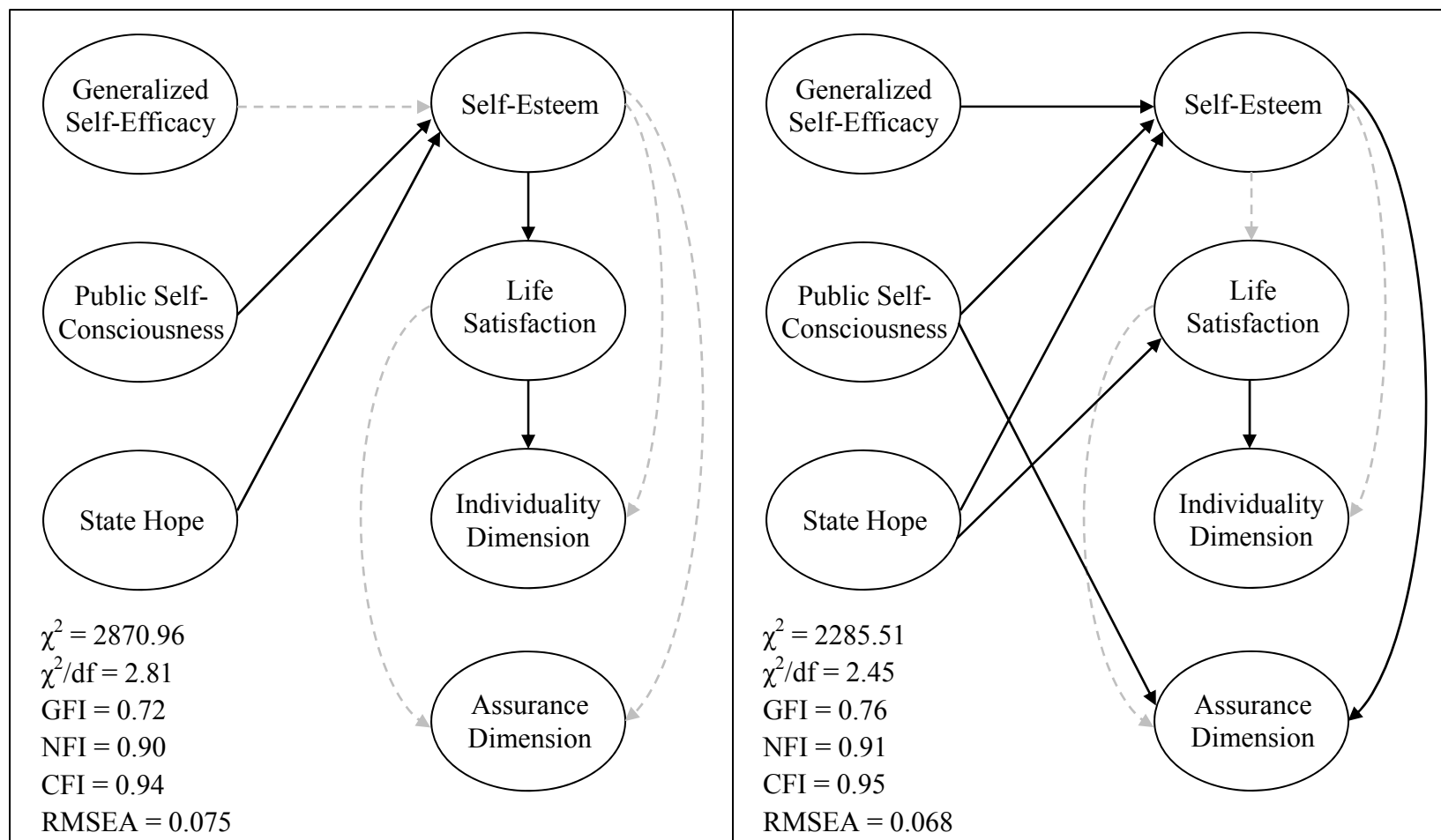
A direct effect of public self-consciousness on the assurance dimension of clothing choice was found (γ_{42} : 0.47 (5.64), $p < .001$) (see Figure 27). This indicates that disabled consumers who have high public self-consciousness are more likely to choose clothing to help them to build self-confidence. This finding is similar to that of Bushman (1993) in which public self-consciousness was related to product choices and brand preferences. People who were worried about what other people thought of them were more concerned about buying and wearing the brands that would be accepted by others than people who were less worried about what other people thought. Individuals with disabilities seem to select clothing to make them look better if they are concerned about the way they present themselves to others.

Figure 27. The Relationship between Disabled Consumers' Public Self-Consciousness and the Assurance Dimension of Clothing Choice



Interestingly, a direct effect of self-esteem on life satisfaction was not found (β_{21} : 0.07 (1.00), $p > .05$), even though the relationship was significant in the original model. This may have been because the additional path of the relationship between state hope and life satisfaction in the adjusted model explained more of the variance in the relationship between self-esteem and life satisfaction. Despite the fact that this relationship was not significant, the model fit of the adjusted model improved over the original model and more significant relationships among variables were found in the adjusted model (see Figure 28). Therefore, the adjusted model was deemed to be a better model overall.

Figure 28. Original (left) and Adjusted Path (right) Models for Main Effects



Note: Black lines represent significant paths; Gray broken lines represent non-significant paths.

See Figure 15 (p. 119) and Figure 16 (p. 124) for detailed values and coefficients.

Conclusions

This study was designed to examine the relation of self-concept to life satisfaction and clothing selection specifically with respect to individuals with disabilities. A critical need exists to consider the experiences of individuals with disabilities, and especially those related to self-concept, life satisfaction, and clothing choice, as disabled individuals are become increasingly more active in society. The findings of this dissertation point to how society might better understand and support the needs of consumers with disabilities.

Demographic information provided by participants draws attention to the general misunderstanding and social prejudice often exhibited toward individuals with disabilities. As Baker, Stephens, and Hill (2001) discussed, we tend to perceive difference through prejudice and ignorance. For example, we often think that individuals with disabilities are less likely to be educated. However, most of the participants in the survey graduated from high school and beyond (e.g., college or university). Thus, this finding is different from that of McColl and Bickenbach (1998) in which disabled individuals appeared to have lower levels of educational attainment than nondisabled individuals. In addition, the income levels for one fifth of the participants exceeded the median household income for nondisabled individuals (\$49,445; U.S. Census Bureau, 2011). Given participants' backgrounds, the notion that individuals with disabilities are less educated and have lower incomes is based on an erroneous assumption.

According to the results, two aspects of disabled individuals' multifaceted self-concept (i.e., public self-consciousness and state hope) influenced their holistic view of the self (i.e., self-esteem). Thus, as Solomon (2007) discussed, self-concept is complex

and is related to the beliefs a person has about his/her own characteristics. In this case, disabled individuals' self-concept was composed, in part, of the degree to which they were concerned about other people's opinions of them, as well as the degree to which they believed in themselves.

Disabled consumers' public self-consciousness is recognized as a significant aspect of self-concept related to their self-esteem. In other words, disabled consumers' self-esteem will be more positive if they are not concerned about what other people think of them. This finding is linked to that of Fromson (2006), who revealed that public self-consciousness results in social anxiety and/or less self-confidence.

Disabled consumers' state hope is another important aspect of self-concept affecting their self-esteem, based upon the findings of this study. This study suggests that disabled individuals will have higher self-esteem when they believe they are energetically pursuing their current goals. Snyder, Cheavens, and Michael (1999) found a similar relationship, wherein state hope affects a person's coping skills and positive self-evaluation. Additionally, findings of Baumeister et al. (1996) are also supported by the present study, in that self-esteem is connected to individuals' self-evaluation relative to their performance expectations.

A positive relationship between disabled individuals' self-esteem and life satisfaction was found in this study, which supports the results of Kim and Lennon's (2007) study. Kim and Lennon (2007) found that nondisabled individuals' appearance satisfaction is associated with overall life satisfaction. A widely tested relationship, life

satisfaction as a consequence of self-esteem is also the case for disabled individuals, as shown by the present study.

Regarding the clothing choice dimensions examined (i.e., individuality, assurance, and camouflage), only the individuality dimension of clothing choice emerged as an important element influenced by disabled consumers' life satisfaction. This finding indicates that these consumers choose clothing that makes them distinctive if they are satisfied with their lives. Similar to Watson et al.'s (2010) study, this finding suggests the important role of clothing in increasing disabled consumers' life satisfaction. Moreover, it is also related to Cosbey's (2001) finding, wherein clothing selection can be related to an individual's positive feelings.

As discussed earlier, the adjusted path model revealed more paths in addition to those in the original model. Based on the results of the adjusted path model, disabled consumers' generalized self-efficacy was positively related to self-esteem. That is, disabled individuals who strongly believe in their ability to deal with difficult situations are more likely to have positive attitudes toward themselves. This finding differs from that of the original model. However, this result supports the finding of Annesi's (2010) study on nondisabled consumers, wherein self-efficacy is related to an individual's body satisfaction. Because body satisfaction is often related to one's self-esteem, the relationship between self-efficacy and self-esteem found in the present study is not altogether surprising.

A positive relationship between disabled consumers' self-esteem and the assurance dimension of clothing choice was found in the adjusted path model, though it

was not supported in the original model. Based on the adjusted path model, this finding indicates that disabled consumers will select clothing to help them feel more sure of themselves when they have more positive self-esteem. Thus, this finding supports that of Watson et al. (2010), suggesting that the positive relationship between disabled individuals' positive perceptions toward themselves and clothing selection is an enhancement of individuality.

Disabled consumers' state hope was found to directly influence life satisfaction in the adjusted path model. That is, individuals with disabilities who believe that they can achieve their current goals tend to evaluate their quality of life more positively. This is similar to findings in one study on nondisabled individuals (Barnum et al., 1998). Moreover, the findings are also related to Adams and Jackson's (2000) study wherein hope enhances the quality of life of individuals.

Disabled consumers' public self-consciousness directly influenced the assurance dimension of clothing choice. As linked to the findings from Cosbey's (2001) study, sociability is related to the meaning of clothing, and in turn, it is linked to clothing selection. Interestingly, disabled individuals with high public self-consciousness are more likely to choose clothing to enhance their security and to improve their feelings. This seems logical, in that disabled individuals who have a need to impress others would most likely want to emphasize their positive qualities via their clothing.

Implications and Recommendations

In general, this dissertation conceptualized a theoretical framework that tested the hypothesized relationships among disabled consumers' self-concept, life satisfaction, and

clothing choice. Data collected from disabled consumers in various settings further contributed to understanding the variables that influence disabled consumers' life satisfaction and clothing choice. Five issues of theoretical relevance based on the model of self-concept, life satisfaction, and clothing selection for disabled consumers emerged from this dissertation and are discussed here.

First, this study explores the antecedents that drive disabled consumers' self-esteem. According to the findings, public self-consciousness and state hope were significant precursors influencing the self-esteem of individuals with disabilities. This result offers clear implications for the importance of public self-consciousness and state hope among individuals with disabilities in general. In particular, the results suggest that disabled consumers' public self-consciousness may be related to clothing choice because high public self-consciousness indicates an individual cares what other people think about what he/she wears. Additionally, disabled consumers who have high state hope tend to have more positive levels of self-esteem. These findings suggest that both society and retailers can help individuals with disabilities to decrease their public self-consciousness. In order to increase self-esteem, apparel retailers should educate their employees to understand disabled consumers' needs with regards to assistance and suggestions for apparel products based on their needs. Retailers must keep in mind that disabled consumers want to be viewed as consumers first, and as disabled consumers second (Baker, Holland, & Kaufman-Scarborough, 2007). Retail salespeople's efforts would provide a positive image of the store and this would help enhance the positive self-concept of disabled consumers.

Second, the study investigated the effects of disabled consumers' self-esteem on their life satisfaction. These two constructs have been found to be closely related in previous studies about disabled consumers within the United States (e.g., Diener et al., 1985; Schwartz & Strack, 1999). However, we would not understand the idea that the relationship between self-esteem and life satisfaction differs for disabled consumers if we had stopped at these previous studies. Thus, this finding points to the necessity of reproducing studies across diverse types and severity levels of disabilities as well as investigating other influential factors that may moderate this relationship.

Third, this research examined the relationship between disabled consumers' self-esteem and their clothing choices. The assurance dimension of clothing choice is influenced by self-esteem to some extent. Regardless of disability type or severity, the importance of clothing, and especially in terms of the effect of feelings about oneself on clothing choice, can be inferred from this study. In addition, the findings of the preliminary qualitative study linked clothing choice to the multifaceted self-concept. This finding can aid apparel retailers looking to enhance their product assortments and offerings. That is, retailers need to understand the social-psychological meanings of clothing choice, or why consumers choose certain clothing, in order to provide appropriate clothing styles for all consumers, not just disabled consumers.

Fourth, this study tested the effect of disabled consumers' life satisfaction on their clothing choice. Disabled consumers' life satisfaction was significantly influenced by the individuality dimension of clothing choice. This infers that disabled consumers want to express their personal identities through clothing when they have positive attitudes

toward their lives. This finding helps to explain the links among self-esteem, life satisfaction, and the individuality dimension of clothing choice. Specifically, individuals with positive self-esteem tend to be satisfied with their lives, and in turn, they express this satisfaction by what they wear. That is, there is a positive relationship between achievement satisfaction and the individuality dimension of clothing choice. Apparel retailers can provide offerings that help show the accomplishments of individuals with disabilities. Apparel retailers might develop more positive and optimistic marketing strategies to increase disabled individuals' store involvement. Additionally, apparel retailers interested in attracting disabled consumers might make a better effort to acknowledge and address the needs of disabled individuals in their advertising campaigns so that disabled consumers do not feel neglected or marginalized (Burnett & Paul, 1996).

Fifth, the modification indices shed light on some significant issues to consider in further study. As the assurance dimension of clothing choice is a consequence of self-esteem, disabled consumers tend to select clothing to have self-confidence when they experience positive self-worth. Self-esteem clearly plays a critical role in determining the clothing selection of disabled consumers. Similarly, the relationship between public self-consciousness and the assurance dimension of clothing choice highlights the usefulness of clothing as a tool to enhance positive feelings when disabled individuals are self-conscious about the way they look. Furthermore, the positive relationship between state hope and life satisfaction for disabled individuals highlights the importance of life satisfaction for the overall evaluation of one's life.

In a practical sense, the self-concept of disabled consumers plays a significant role in the positivity of their lives. To support disabled consumers, society needs to help them feel less public self-consciousness and to increase their state hope. Scholars and educators need to study and share the successes of individuals with disabilities, as well as provide more ways to express their accomplishments. Society can help disabled individuals to achieve their goals, which will in turn increase their self-esteem. Such goals can include a wide variety of things, such as encouraging involvement in sports activities, or offering a wider variety of jobs. All of us can encourage greater participation in society and help them overcome the barriers in their lives.

Several academic and practical recommendations follow from the findings of this dissertation. First, more research is required to better understand the current needs of individuals with disabilities, as well as different needs of different generations. Unfortunately, unemployment among individuals with disabilities was found to still be an issue in this study, even though their education levels have improved. Thus, government and local communities can make an effort to provide more working opportunities for disabled individuals. As many individuals with disabilities like to work, more occupational kinds of opportunities are needed. Also, vocational training or rehabilitation training can help them develop the skills needed to be gainfully employed. Providing such job training will also help clarify the misconception that disabled individuals have lower levels of educational attainment than those who are nondisabled, or that they do not have enough skills to work (McColl & Bickenbach, 1998). Greater access to education will help disabled individuals become inner-focused rather than outer-focused. Allport

(1955) indicated that education could help individuals improve their sense of self and their goal-directed thinking, so providing disabled individuals with educational opportunities is imperative, especially given the importance of self-esteem and self-efficacy in their life satisfaction. Educators also need to teach others about the rights and equality of individuals with disabilities. Finally, the retailers might provide better clothing choice conditions (e.g., broaden the availability of clothing) for disabled consumers.

On a practical level, apparel retailers can develop promotions and events to make individuals with disabilities feel better about their accomplishments and, in turn, have positive attitudes toward the companies. Apparel retailers can also understand their disabled consumers better by considering their clothing selection needs, such as fit or color choice. Furthermore, apparel retailers should try to offer more clothing (e.g., broaden the availability of clothing for disabled consumers) to help disabled consumers feel better about themselves. Interestingly, the camouflage dimension of clothing choice may explain the other side of the individuality dimension of clothing choice, or that disabled consumers will select clothes to hide themselves if they have low self-esteem. Thus, apparel retailers might provide a variety of apparel styles to meet the different needs of disabled consumers based on their differing social-psychological characteristics.

Limitations and Suggestions for Future Research

This study has some limitations that point to interesting opportunities for further research. First, clarification of the high correlation found between the generalized self-efficacy scale and the state hope scale is needed. The generalized self-efficacy construct

was measured in the present study using Oyedele and Simpson's scale (2007). However, a more concise scale to measure a person's beliefs about his/her capabilities to achieve certain goals or to deal with a variety of difficult situations is needed. Moreover, the state hope scale was adopted for this dissertation based on the theme of dress as a means of indicating goal accomplishment, which emerged from the preliminary qualitative study. Some of the items (e.g., "If I should find myself in a jam, I could think of many ways to get out if it") in the scale (Snyder, 1996) were similar to what the generalized self-efficacy scale measured (e.g., "If I am in trouble, I can usually think of a solution"). Thus, an exploratory factor analysis may be needed to clarify whether the scale measures one succinct concept. A different scale that measures a person's current goal-directed thinking more precisely might be adopted for further use. Likewise, the clothing choice dimension scales need to be refined to better measure the social-psychological clothing choices of individuals with disabilities. Variation of the type and severity of disabilities in the sample could not be controlled in terms of the clothing choice dimensions. Thus, the scales used to explain clothing choice dimensions can be further developed or adopted from additional resources in the literature. Additionally, the social-psychological clothing choice dimensions in this study might be further explained by practical clothing choice dimensions (e.g., fit, color, shape, fabric, and pattern). Last, untested dimensions (i.e., functional and fashionable clothing choice dimensions) could be developed and then investigated.

Whether results might differ by disability type (e.g., individuals with visual disabilities, individuals with hearing disabilities, or individuals with physical disabilities)

was beyond the scope of the study. Thus, further investigation of the impact of different disabilities is needed. Additionally, the duration of a disability (e.g., lifelong vs. less than one year) may provide different results with respect to self-concept, life satisfaction, and clothing choice of individuals with disabilities. Whether a disability occurs early in life or is acquired recently may affect self-esteem. For example, an individual with a lifelong disability may have higher self-esteem compared to an individual who has a disability for a short period of time as the latter recently experienced a major life change. For instance, if a veteran from Afghanistan returns home after losing his/her leg, the disability may decrease self-esteem or life satisfaction for that veteran until he/she adjusts to life as a disabled individual. Immediately upon arriving home, the veteran's self-esteem and life satisfaction will differ from the time when he/she did not have a disability, and this, in turn, will affect clothing choice. As the veteran learns to live an active life as a disabled individual, his/her level of self-esteem and life satisfaction will most likely evolve over time, along with his/her clothing choices.

The relationship between self-esteem and life satisfaction needs further investigation, and particularly in terms of what moderates the relationship between these two variables. As a positive relationship between self-esteem and life satisfaction was found for disabled consumers and was found in the literature for nondisabled consumers, further study of the factors moderating the relationship between self-esteem and life satisfaction is needed. For example, current employment may moderate the relationship between self-esteem and life satisfaction because life conditions are often related to active involvement in employment and other social situations (Altman, 2001; Morris,

1991). Also, education level can play a moderating role in the relationship between self-esteem and life satisfaction because more education can lead to higher self-esteem yet it can lessen life satisfaction.

One of the largest areas of research about disabled consumers pertains to their shopping behaviors (MacDonald, Majumder, & Bua-Iam, 1994). Advanced technology has provided consumers with a variety of options to use when clothing shopping, and has good potential for making clothing shopping more convenient for disabled consumers. Due to physical or mental constraints, disabled people need more convenient ways to shop for clothing. Thus, a potential research avenue to explore is that of disabled consumers' use of technology-based shopping environments. As found in previous research, disabled consumers sometimes have difficulties with online searches (Childers & Kaufman-Scarborough, 2009). Educating disabled consumers to use the online environment effectively is an important area in need of study.

Another potentially fruitful future research avenue relates to brand selection and loyalty among disabled consumers. Brands may be strongly linked to disabled consumers' identities, in that they select brands to express themselves or show group membership. Brand loyalty and brand image have been often explored in relation to self-image (Kressmann et al., 2006). However, there is no research about the use of brand to create or enhance identities of disabled individuals. Understanding disabled consumers' brand choices will help us better understand their shopping behaviors. Similarly, online communities of disabled consumers may be useful for understanding their brand behavior. Regarding further investigation of the information search process, disabled consumers

ranked various information sources when purchasing clothing (Carroll & Kincade, 2008). How disabled consumers search for certain products will differ for different reasons, such as color identifying, which allows computers to explain colors to individuals who are blind. Based on technology and economic development in the current era, examining how disabled consumers' information search changes over time or how their use of technology differs by type of disability will help us to better understand their consumption attitudes and behaviors.

Furthermore, clothing and textiles scholars should continue to examine disabled consumers' clothing shopping preferences (e.g., store formats) and shopping limitations (MacDonald, Majumder, & Bua-Iam, 1994) along with their special clothing design needs. Specifically, as social interactions of disabled people in society have increased, social factors (e.g., interaction with salespeople) and their influences on disabled consumers' emotions, attitudes, and behaviors need to be considered in future research. Consumers are more sophisticated than ever before (Howard & Mason, 2001). They are looking for products beyond those that simply serve utilitarian purposes. For example, some products may be attractive from an emotional or hedonic perspective. Thus, other influences (e.g., motivations or situations) on disabled consumers' shopping decision-making should be considered in further research.

A large number of participants in this study had a visual impairment. Naturally, the question arises as to how these individuals select their clothing, whether to wear or purchase. Thus, further research is needed on this topic, as is how clothing choice might

differ between individuals who have no sight versus those with partial sight. A qualitative approach to such topics would yield a great deal of insight.

Last but not least, the self-concept of individuals with disabilities relative to various life spaces, such as with family, with friends, with co-workers, and with work supervisors should be investigated. Unsolicited, one of the survey participants said that he became blind unexpectedly and he experienced extreme depression immediately following the loss of sight. However, one of his co-workers guided and helped him, so that he eventually overcame his limitations. Clearly, the actions of family, friends, or co-workers have an important influence on disabled consumers' self-concept and life satisfaction. Also, cultural or social perspectives are necessary additional dimensions in research designed to better understand disabled consumers' self-concept. For example, in a collectivist culture, disabled consumers may care more about others' opinions as opposed to a culture that stresses individualism (Westbrook, Legge, & Pennay, 2002). Thus, how they choose clothing will likely differ. Disabled consumers' self-concept may also change as their involvement levels and environments change (Bricout & Gray, 2006). Specific areas of research focus might include: how perceptions about disabled individuals have changed within the workplace and the role that family members and peer groups play in the formation of disabled consumers' self-concept and clothing choices. Because the sample from the present study drew from community and employment organizations that focus on skill development and the promotion of self-esteem among their members, the results of the study may have been skewed. Therefore, there is a need to understand individuals with disabilities who work and participate in

other kinds of organizations, such as companies that hire relatively few individuals with disabilities. Finally, the ways in which disabled individuals' clothing selections change relative to various environments (e.g., occupational environment) or various life stages would be similarly beneficial to research in the future.

In conclusion, this dissertation provides a theoretical framework that empirically tested relationships between self-concept, life satisfaction, and clothing selection among consumers with disabilities. The key insight provided by this study is that disabled consumers use clothing to express their self-concept and enhance their life satisfaction. This study sheds light on the social-psychological factors that influence clothing choices of disabled consumers and points to future research needs with regards to this often overlooked consumer segment.

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APPENDIX A
SURVEY QUESTIONNAIRE



THE UNIVERSITY of NORTH CAROLINA
GREENSBORO

Dear Apparel Consumers:

This is a research survey to understand what disabled consumers consider when they select clothing. This study is also designed to investigate how clothing that you wear makes you feel about yourself and your life.

This research is important because clothing can play a significant role to understand perceptions of self and beliefs about the life. Also, this study will provide insight into disabled consumers' clothing needs so that clothing manufacturers and retailers can better meet their needs.

Please take 10-15 minutes to complete this questionnaire. There are no right or wrong answers to the questions. Your participation is voluntary. As researchers, we are interested in knowing about your clothing selection and its related influences. You may be assured of complete confidentiality.

You can enter to win a gift card after completing this survey. By participating, your responses will help us to better understand how consumers select their clothing.

There are no known risks associated with participating in this research. While it is not possible to identify all potential risks in completing a survey, the researcher has taken reasonable safeguards to minimize any known and potentially, but unknown, risks.

Please return the completed questionnaire to the researcher. Your participation will be greatly appreciated. Feel free to ask the researcher questions and to stop the survey at any time if you decide to do so. If you have any questions or concerns at some point in the future, please feel free to call us at (336) 553-8692. We would be most happy to answer your questions. If you have any questions about your rights as a volunteer in this research, contact Mr. Eric Allen in the Office of Research Compliance at UNCG at (336) 256-2474.

Thank you, in advance, for your valuable assistance!

Sincerely,

Julie Chang, Graduate Student
Student Researcher

Nancy Hodges, Ph.D., Professor
Co-Principal Investigator

Jennifer Yurchisin, Ph.D., Assistant Professor
Principal Investigator

SECTION I. CLOTHING SELECTION

Part 1. Please indicate how you **choose your outfit** by circling the number that best describes your perception.

When I go out, I tend to select...

Q-1-1. Clothes that are unusual.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1-2. Clothes that make me stand out.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1-3. Clothes that make me distinctive.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1-4. Clothes that are well fitting.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1-5. Clothes that make me look different from others.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1-6. Clothes which boost my morale.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1-7. Clothes that make me feel better.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1-8. Clothes which make me feel more sure of myself.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1.9. Clothes that give me self-confidence.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1.10. Clothes make my body look good.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1.11. Clothes which are my favorite.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1.12. Clothes that hide the parts of my body that I don't like.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1.13. Loosely fitting clothes.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1.14. Clothing that draws attention to me.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1.15. Clothes that are dark colored.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1.16. Clothes that are bright colored to lift my mood.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-1.17. Clothing according to the mood I am in that day.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

SECTION II. BELIEFS ABOUT YOUR LIFE

Part 2. Please indicate how **you think about your life** by circling the number that best describes your beliefs.

Q-2-1. In most ways, my life is close to my ideal.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-2-2. The conditions of my life are excellent.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-2-3. I am completely satisfied with my life.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-2-4. So far I have gotten the most important things I want in life.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-2-5. If I could relive my life, I would change nothing.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

SECTION III. PERCEPTIONS ABOUT YOURSELF

Part 1. Please indicate how you **think about yourself** by circling the number that best describes your perception.

Q-3-1. I can always manage to solve difficult problems if I try hard enough.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-2. If someone opposes me, I can find the means and ways to get what I want.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-3. It is easy for me to stick to my aims and accomplish my goals.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-4. Thanks to my resourcefulness, I know how to handle unforeseen situations.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-5. I can solve most problems if I invest the necessary effort.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-6. I can remain calm when facing difficulties because I can rely on my coping abilities.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-7. When I am confronted with problems, I can usually find several solutions.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-8. If I am in trouble, I can usually think of a solution.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-9. I can usually handle whatever comes my way.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-10. I am concerned about what other people think of me.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-11. I usually worry about making a good impression.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-12. I am concerned about the way I present myself.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-13. I am self-conscious about the way I look.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-14. I am usually aware of my appearance.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-15. I am concerned about my style of doing things.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-16. One of the last things I do before leaving my house is to look in the mirror.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-17. If I should find myself in a jam, I could think of many ways to get out of it.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-18. At the present time, I am energetically pursuing my goals.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-19. There are lots of ways around any problem that I am facing now.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-20. Right now I see myself as being pretty successful.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-21. I can think of many ways to reach my current goals.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-22. At this time, I am meeting the goals that I have set for myself.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-23. I feel that I am a person of worth, at least on an equal basis with others.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-24. I feel that I have a number of good qualities.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-25. All in all, I am inclined to feel that I am a failure.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-26. I am able to do most things as well as most people.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-27. I feel I do not have much to be proud about.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-28. I take a positive attitude towards myself.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-29. On the whole, I am satisfied with myself.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-30. I wish I could have more respect for myself.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-31. I feel quite useless at times.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

Q-3-32. I sometimes think that I am no good at all.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

SECTION V. DEMOGRAPHIC INFORMATION

The following information will remain confidential and no personal identification will be made in the study.

Q-4. What is your age? _____ years old

Q-5. What is your gender? _____ Female _____ Male

Please circle the most appropriate response to the following questions.

Q-6. What is the highest level of education you have completed?

- 1 Finished High School
- 2 Completed Technical College
- 3 Completed Junior/Community College
- 4 Completed College
- 5 Completed Graduate School
- 6 Other _____

Q-7. Which of the following describes your main activities at present?

- 1 I am currently in paid employment
- 2 I am currently self-employed
- 3 I am retired
- 4 None of the above

Q-8. What was your household income in the year 2011-2012?

- 1 \$19,999 or less
- 2 \$20,000 – 34,999
- 3 \$35,000 – 49,999
- 4 \$50,000 – 64,999
- 5 \$65,000 – 79,999
- 6 \$80,000 – 99,999
- 7 \$100,000 or above

Q-9. What is your ethnicity?

- 1 American Indian
- 2 Asian-American
- 3 Asia or Pacific Islander (Please specify: _____)
- 4 Black or African American
- 5 Hispanic or Latino
- 6 White
- 7 Other (Please specify: _____)

Type of disability

What is the nature of your disability/impairment? Write in _____

Are you a veteran? 1. Yes 2. No

Q-10-1. Circle all that apply

- 1 Mobility impairment
- 2 Sensory impairment
- 3 Vision
- 4 Hearing
- 5 Learning disability
- 6 Mental health problems
- 7 Long term illness
- 8 Chronic medical condition
- 9 Other (Describe: _____)

Q-10-2. If mobility impairment, do you use a wheelchair at all?

- 1 Some/most of the time
- 2 Never/rarely

Q-10-3. If hearing impairment, do you have hearing?

- 1 No hearing
- 2 Partial hearing

Q-10-4. If visual impairment, do you have sight?

- 1 No sight
- 2 Partial sight

Duration of impairment/disability/illness (circle one only)

Q-11. How long have you had this disability/impairment/illness?

- 1 Less than a year
- 2 1-5 years
- 3 6-10 years
- 4 Over 10 years
- 5 All of my life

THANK YOU VERY MUCH FOR YOUR PARTICIPATION!

APPENDIX B
CONSENT FORM

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

CONSENT TO ACT AS A HUMAN PARTICIPANT: LONG FORM

Project Title: An Investigation of Apparel Selection and Its Related Aspects among Disabled Consumers

Project Director: Hyo Jung Chang, under the direction of Drs. Jennifer Yurchisin and Nancy Hodges

Participant's Name: _____

What is the study about?

This is a research project. The purpose of this study is to understand disabled consumers with regard to their apparel selection and how the apparel worn by disabled consumers influences their self-concept and life satisfaction.

Why are you asking me?

I am asking you to participate because as an adult apparel consumer, your perspectives on apparel consumption will provide unique insight into the topic. You were selected for potential participation in this study because you are currently registered with the Office of Disability Services at UNCG.

What will you ask me to do if I agree to be in the study?

If you agree to participate, you will be asked to fill out a survey pertaining to your clothing selection, life satisfaction, and self-concept. It will take 10-15 minutes to complete this study. There are no right or wrong answers to the questions. You are allowed to work at your own pace. You may choose not to answer some or all of the questions. You may stop filling out this survey at any time if you feel uncomfortable.

Is there any audio/video recording?

No

What are the dangers to me?

There are no anticipated risks from participating in this research. The Institutional Review Board at University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants.

If you have any concerns about your rights or how you are being treated, please contact Eric Allen in the Office of Research and Compliance at UNCG at 336-256-1482. Questions, concerns or complaints about this project or benefits or risks associated with being in this study can be answered by Dr. Nancy Hodges, who may be contacted at 336-256-0291 or njnelson@uncg.edu, or Dr. Jennifer Yurchisin at 336-334-5250 or jlyurchi@uncg.edu, or Hyo Jung (Julie) Chang at 336-553-8692 or h_chang@uncg.edu.

Are there any benefits to me for taking part in this research study?

There are no direct benefits to participants of this study.

Are there any benefits to society as a result of me taking part in this research?

Your participation may help to provide insight into the apparel selection of disabled consumers and how this is related to self-concept and life satisfaction. Your participation may provide better understanding of disabled consumers' needs.

Will I get paid for being in the study? Will it cost me anything?

You can enter to win a \$15 Starbucks gift card after you participate in the survey if you want. Your contact information will be kept confidential in a locked drawer in the Office of Disability Services until the drawing has been conducted. After the winner has been selected, the entry forms will be shredded.

How will you keep my information confidential?

After the Office of Disability Services staff member collects your completed consent form and questionnaire, these items will be placed in two separate envelopes. After the items are placed in the envelopes, only principal investigators and the student researcher will have access to information you provide. In order to maintain your confidentiality, neither your name nor address will be asked. Your answers will be kept confidential. Questionnaires will be assigned an id number so that all participants remain confidential. No link will be made between participants' names and their survey answers. The research data will be kept for 3 years in a locked filing cabinet in a locked private office on the UNC-Greensboro campus, after which all documents will be shredded and computer files will be deleted. All information obtained in this study is strictly confidential unless disclosure is required by law.

What if I want to leave the study?

You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state.

What about new information/changes in the study?

If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:

By signing this consent form you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consent to take part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are 18 years of age or older and are agreeing to participate, or have the individual specified above as a participant participate, in this study described to you by Hyo Jung (Julie) Chang.

Signature: _____ Date: _____

APPENDIX C

APPROVAL OF INSTITUTIONAL REVIEW BOARD (IRB) FOR THE USE OF HUMAN PARTICIPANTS IN RESEARCH



THE UNIVERSITY of NORTH CAROLINA
GREENSBORO

OFFICE OF RESEARCH COMPLIANCE
2718 Beverly Cooper Moore and Irene Mitchell Moore
Humanities and Research Administration Bldg.
PO Box 26170
Greensboro, NC 27402-6170
336.256.1482
Web site: www.uncg.edu/orc
Federalwide Assurance (FWA) #216

To: Jennifer Yurchisin
Cons, Apparel, And Ret Stds
210 Stone Building

From: UNCG IRB

Date: 1/24/2012

RE: Notice of IRB Exemption

Exemption Category: 2.Survey, interview, public observation

Study #: 11-0366

Study Title: An Investigation of Apparel Selection and its Related Aspects Among Disabled Consumers

This submission has been reviewed by the above IRB and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.101(b).

Study Description:

The purpose of this study is to investigate disabled apparel consumers with regard to their self-concept, clothing selection and life satisfaction.

Study Specific Details:

This modification, dated 1/23/12, addresses the following: **Investigator's Responsibilities**

Please be aware that any changes to your protocol must be reviewed by the IRB prior to being implemented. The IRB will maintain records for this study for three years from the date of the original determination of exempt status.

CC:

Nancy Hodges, Cons, Apparel, And Ret Stds
Hyo Jung Chang, Cons, Apparel, And Ret Stds
ORC, (ORC), Non-IRB Review Contact

- Change in protocol to go from pretest to actual study.
- Change in questionnaire.
- Change in consent forms.
- Addition of Industries for the Blind and Goodwill Vocational Training Center as research sites.
- Increase in number of participants

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

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Project Director: Hyo Jung Chang, under the direction of Drs. Jennifer Yurchisin and Nancy Hodges

Participant's Name: _____

What is the study about?

This is a research project. The purpose of this study is to understand disabled consumers with regard to their apparel selection and how the apparel worn by disabled consumers influences their self-concept and life satisfaction.

Why are you asking me?

I am asking you to participate because as an adult apparel consumer, your perspectives on apparel consumption will provide unique insight into the topic. You were selected for potential participation in this study because you are an adult consumer of 18 years of age or older.

What will you ask me to do if I agree to be in the study?

If you agree to participate, you will be asked to fill out a survey pertaining to your clothing selection, life satisfaction, and self-concept. It will take 10-15 minutes to complete this study. There are no right or wrong answers to the questions. You are allowed to work at your own pace. You may choose not to answer some or all of the questions. You may stop filling out this survey at any time if you feel uncomfortable.

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UNCG IRB
Approved Consent Form
Valid 1/25/12 to 10/24/14

Will I get paid for being in the study? Will it cost me anything?

You can enter to win a \$50 Visa gift card after you participate in the survey if you want. Your contact information will be kept confidential in a locked drawer in the Principal Investigator's office until the drawing has been conducted. After the winner has been selected, the entry forms will be shredded.

How will you keep my information confidential?

Consent forms and drawing papers will be stored in a locked file cabinet in the Principal Investigator's campus office. In order to maintain your confidentiality, neither your name nor address will be asked. Your answers will be kept confidential. Questionnaires will be assigned an id number so that all participants remain confidential. No link will be made between participants' names and their survey answers. The research data will be kept for 3 years in a locked filing cabinet in a locked private office on the UNC-Greensboro campus, after which all documents will be shredded and computer files will be deleted. All information obtained in this study is strictly confidential unless disclosure is required by law.

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By signing this consent form you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consent to take part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are 18 years of age or older and are agreeing to participate, or have the individual specified above as a participant participate, in this study described to you by Hyo Jung (Julie) Chang.

Signature: _____ Date: _____

UNCG IRB
Approved Consent Form
Valid 1/25/12 to 10/24/14